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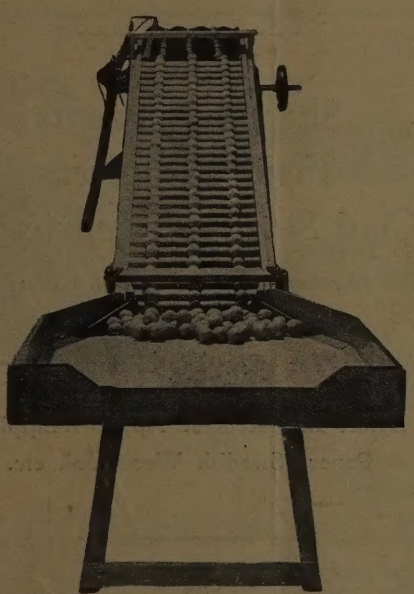
IMPERIAL MYCOLOGICAL INSTITUTE
22 JUNE 1935

The FRUIT WORLD OF AUSTRALASIA

and

"Market Grower"

(Circulates throughout all the States of Australia and New Zealand and Overseas)



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Extract "BETTER FRUIT," U.S.A., February, 1934:

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South Australia: George Wills & Co. Ltd., Gilbert House, Gilbert Place, Adelaide.
Western Australia: Gibbs, Bright & Co., Perth.

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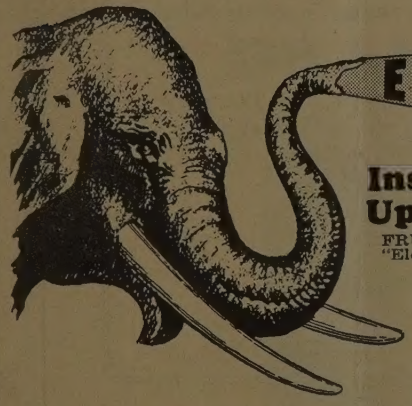

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Extract "BETTER FRUIT," U.S.A., February, 1934:

"Idaho Spray Programme for Codlin Moth Control, 1934," by Dr. Claude Wakeland, Department of Entomology, University of Idaho.

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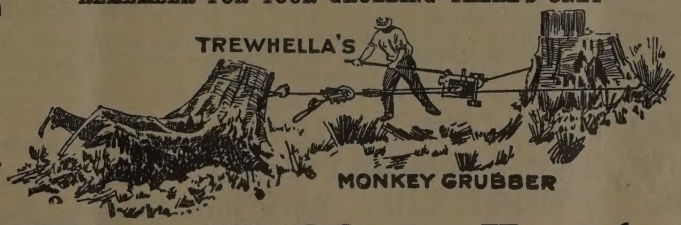

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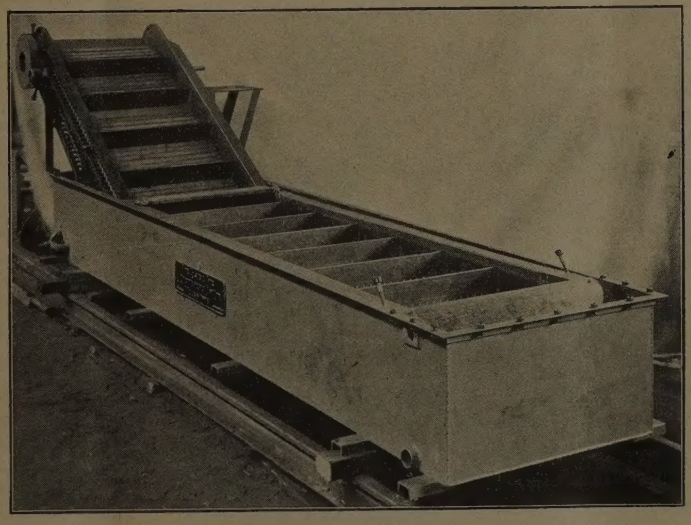

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The "Petty" Two-Furrow Disc Orchard Stripping Plow in action plowing the strips out from and around each tree.

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Write for our free booklet for full details of above sprays.

Clean fruit Assured—

when Neptune Sprays are used

Don't take risks with inferior materials—always specify the best. Neptune spraying preparations are obtainable through Agencies and Associations all over Australia, or direct from the Neptune Oil Company Limited.

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SPRAYING MATERIALS

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Editorial Chats

THE AUSTRALIAN FRUIT INDUSTRY, in common with many other primary industries, is passing through a difficult period. Many of the problems are due to world conditions, over which we have no control.

Experiments in social reconstruction are taking place in several countries of the world, involving many millions of inhabitants. We hear of national planning, Communism, controlled currencies, international trade treaties, and so on. These are, of course, of great importance, and affect every one of us, but are outside the scope of this article.

* * *

In the midst of national and international activities, we can pause to consider:

What are the major factors affecting the Australian fruit industry today?

With all sections of the industry,—dried, canned and fresh fruits,—production costs could be reduced as a result of intensive scientific research. The importance of this cannot be too strongly impressed on our Governments.

Oranges. Are there areas in Victoria producing Oranges which are definitely not wanted on the markets? If so, will not the inevitable consequence be that these areas will go out of Orange production, the land being used for the production of a crop to which it is more suited? Equally so, do not these questions apply also to N.S.W.?

Canned Fruits. As pointed out in our last issue by Mr. W. Young, chairman of the Northern Victoria Fruitgrowers' Association, large areas are under Peach production in the Goulburn Valley, on land which it is admitted is not best suited for this purpose; also, it is recognised that there are areas in other parts of the State more suitable than those at present producing the fruit. This matter is of both Australian-wide and international significance, when it is recognised that the average tonnage of Peaches to the acre in California is more than double that of Australian production.

In the meantime, of course, growers are deserving of the best service which can be rendered to enable them to carry on as effectively as possible.

Apples. In Australia, Apple production is spread over a very wide area, and frequently in very scattered districts. Here, again, it is recognised that some districts are more suitable for economic Apple production than others. This is of more than local significance, bearing in mind that in both U.S.A. and Canada, commercial boxed Apple production is centred in large valleys, say, Hood River, Oregon; Wenatchee and Yakima in Washington, and the Okanagan Valley in British Columbia, much of the fruit being shed-packed under supervision.

However, each Australian Apple growing district serves a useful purpose: the subject of better co-ordination is dealt with later in this review.

* * * *

Low Quality Fruit.

How often have the market representatives of growers stressed the point that there has never yet been a glut of high quality fruit?

It is the definitely inferior grades of fruit on the markets which are doing untold harm to the industry. This is admitted by growers, wholesalers and retailers.

Yet in most instances, the marketers of this poor quality fruit are breaking the law in submitting the fruit for sale.

If the powers of inspectors are not wide enough to cope with this problem, such power should not be difficult to obtain through Parliament. Where sufficient power is possessed, why is it not being exercised? Is it because of lack of moral support from the industry itself, or shortage of inspectors?

Advertising.

Then, again, it must be stated with earnest frankness that the industry has not yet measured up to its possibilities in the matter of advertising to increase consumption. This is as important to the public as to the growers. Fruit is still, in many instances, looked upon as a luxury, instead of an urgent necessity, whether for children, youths, people in the prime of life or in old age.

Manufacturers with other foods to offer are spending millions in advertising annually. **The fruit industry, with Nature's own marvellous gift, is silent.**

In the last issue of the "Fruit World," the story of the "Sunkist" organisation and advertising was told. The principles adopted there are of universal application.

A wisely directed advertising campaign is capable of doubling fruit consumption in Australia.

Think of it: If Australians ate only an average of an Apple per day there would be no need to export. In fact, there would be need for increased planting to supply the Australian demand.

Campaigns to increase the sale of Oranges or other fruits in season would be equally beneficial.

Now that the export market for Apples is known to be definitely limited, the need is all the greater for the development of our local markets. We send thousands of pounds sterling overseas to advertise our fruit to the British public. This is well worth while. But what about a similar campaign in this country?

Let us think positively on these matters. Let us rise to this definite challenge, and demonstrate the truth of these logical assertions. Success is assured.

Pure Fruit Drinks.

The question of pure fruit drinks has not yet been adequately tackled by the people mainly concerned, namely the growers. Small concerns are operating here and there, and sufficient has been done to demonstrate the immense possibilities in this connection, yet, to-day deleterious synthetic drinks are sold in immense quantities, while pure fruit drinks are practically unknown.

In New York State recently, the State Government provided a substantial sum of money for its research station at Geneva, N.Y., to study the production of Apple drinks. The result was the production of a high-class, sparkling Apple drink, which has won public favor for manufacture in commercial quantities.

Our berry growers have complained from time to time of glutted markets in their limited period of supply. Without wishing to unduly quote experience from other places, it should be noted that American growers, when faced with a similar problem, promptly stored large quantities of Strawberries with sugar in barrels by freezing, the fruit being released from cool store later for immediate use in the pie and confectionery trade, with the result that Strawberry and Loganberry pie can be obtained throughout the entire year.

* * *

It is of particular interest to note that the "Sunkist" organisation bases its operations on industry and trade co-operation—effective organisation among the growers, and co-operation with the wholesale and retail trade, at the same time keeping faith with the public.

The story of the W.A. Apple Sales Board, in this issue, makes very interesting reading. Here is a successful organisation at work, and the same principles are operating,—grower organisation, trade co-operation (wholesale and retail), plus advertising to the public.

* * *

A few years ago great emphasis was laid on the co-operative movement among growers. None will deny its usefulness. Then came some unfortunate crashes, which weakened the original enthusiasm. Experience showed both the scope and limitation of the movement.

To-day there are some earnest folk who would place legislative action in the forefront. Here, again, we have evidence of both success and expensive failures. The subject is worth discussing in detail, giving actual examples. The opinion of readers is invited for publication.

* * *

But, in the meantime, could not our energies be directed to certain proved

and universal principles? Summed up, the necessity for the following is outstanding:—

(1) Production of high quality fruit (scientific research welcomed).
(2) Keeping definitely inferior fruit off the markets,—both city and country.
(3) Advertising to increase fruit consumption.
(4) Utilisation of poorer class fruits in fruit drinks and by-products.

All of these objectives are within the reach of the fruit industry to-day, without expensive or elaborate organisation

PERSONAL.

Mr. A. E. Hyland, London Director of Australian Trade Publicity, performed good service on his recent visit to Australia in giving producers first-hand information of the publicity methods which are being successfully conducted in England.

Mr. Hyland sailed for London on April 30.

* * *

The Tasmanian Government has appointed Mr. B. O. Plummer as the representative of the Tasmanian fruit industry on the Sydney Market.

* * *

Mr. Gilbert Chandler, son of the late A. E. Chandler, M.L.C., won the by-election (South Eastern province) Victorian Legislative Council.

* * *

Mr. J. Holmes, managing director of J. Holmes Ltd., Sydney Fruit Markets, has left for a holiday tour of the East. He expects to return to Sydney some time in June.

* * *

Mr. E. Johns, managing director of the Australian Fruit and Produce Co., Sydney, is having an extended tour of Tasmania. He will probably be away two months.

* * *

Mr. Walter Musgrove, of the Sydney Fruit Markets, recently spent several weeks in Tasmania visiting orchardists who have for many years sent their fruit to his firm for disposal at the City Markets. Mr. Musgrove visited the Tamar, East Coast, and Huon areas, and altogether had a very enjoyable trip.

COLD STORAGE RESEARCH.

G. B. Tindale to Remain in Victoria.

IT IS PLEASING to know that Mr. G. B. Tindale, B.Agr.Sc., Cool Storage Research Officer, Victorian Dept. of Agriculture, is to remain in Victoria to continue his appreciated services.

Victoria went near to losing Mr. Tindale, as his services were sought elsewhere. The Victorian Government is to be congratulated on making the necessary arrangements for retaining the services of this skilled officer.

After several years of patient research, it has been possible for the Department of Agriculture, because of Mr. Tindale's researches, to issue authoritative advice regarding the cool storage of Pears, Peaches, Plums, Apples, Grapes, Passionfruit, etc. Largely as a result of the intensive study of Pears, the export trade in this fruit is being built up.

It is now known that, picked at the right stage, the Late Crawford Peach has a storage life of ten weeks.

Mr. Tindale is widely esteemed among fruit producers, and it is certain that the action of the Government in securing the retention of his services is appreciated.

* * *

Mr. G. W. Brown, president of the Victorian Fruit Marketing Association, is to address a meeting of fruitgrowers at Harcourt on May 2. During May Mr. Brown will address meetings at Shepparton, Portland and Batlow (N.S.W.).

* * *

Mr. A. W. Schwennesen, general manager of the Victorian Central Citrus Association, visited N.S.W. during April. He is to address a meeting of the Leeton Fruitgrowers' Co-operative Society on May 2.

TO DOUBLE FRUIT CONSUMPTION.

If the sale of fresh fruit could be doubled or even increased by 50 per cent., the distribution problems of the producers would be solved overnight.

The market is here. The doors of opportunity are wide open. What is needed?

An effective educational advertising campaign. Not a spasmodic effort, but real consistent campaign such as is used by every other successful wholesale distributing concern.

Fruitgrowers! Don't hesitate! The benefits are real and permanent.

NEWS IN BRIEF.

EXPERIMENTS in U.S.A. for removing spray residue on fruit revealed the effects of the combination of lead with Apple wax. This may lead to new fruit cleaning methods.

NO SUCCESS has been achieved so far with non-arsenical sprays for codlin moth control in U.S.A. Tests are being made with non-lead arsenicals.

NEW AND PROMISING spray schedules are being tested in the Pacific North-West of U.S.A., with a view to improved residue removal. Tandem and double washing machines are now being generally used.

THE RELATIVE VALUES of beans and peas for cover crops are discussed in the article in this issue by our Murray River correspondent.

THE VICTORIA MARK Fruit Co. Ltd., is offering prizes for fruit and for essays on marketing at Royal Agricultural Show, at Melbourne, in September.

FRUIT TREE PLANTING is going ahead rapidly in U.S.A. This season Californian nurserymen completely sold out of fruit trees. There was a particularly big demand for Apple trees.

THE APPLE VARIETY "Lalla" is reported on very favorably from Batlow. The coloring is an extraordinarily rich red, and the variety is deemed to be an acquisition to the district.

The selling of Apples by number, instead of by weight, is receiving the consideration of the South Australian Fruit Marketing Association.

BANANA CROPS in Northern New South Wales are developing satisfactorily. Crops from the newly planted areas around Macksville are expected to reach the market about July.

ACCORDING to a report from the South Australian Trade Commissioner in London, English fruitgrowers are opposed to the proposed Control Bill. Resolutions in opposition to the Bill have been carried at representative meetings, and a committee has been formed to defeat the Bill.

REPORTS from New Zealand indicate the success of the Dominion Mark fruit advertising campaign.

THE NATIONAL MARK fruit advertising campaign is successfully operating in England. A cabled report on April 18 stated that the National Mark Scheme was also highly successful with butter.

THE BRANDING OF APPLE cases with counts instead of size is recommended by the Victorian Department of Agriculture.

The W.A. Apple Sales Board urges the clearance of all shed-stored fruit by June 30.

An Apple advertising campaign was conducted last season by the W.A. Apple Sales Board. Strangely enough, a heavier demand set in for cooking than for dessert Apples.

The principle underlying the successful fruit marketing in Western Australia might well be examined at first hand by those who seek to bring about better fruit marketing methods generally. Quality, Quality, Quality,—that is the keynote of the W.A. fruit marketing scheme.

VISITOR FROM NEW ZEALAND.

Mr. A. Osborne, Manager, N.Z. Fruitgrowers' Federation, Appreciates Co-operation with Australia.

Mr. A. Osborne, manager of the New Zealand Fruitgrowers' Federation Ltd., visited Australia during April. He spoke appreciatively of the Australian delegates (Messrs. Mills, Brown, Court and Cane), who recently visited New Zealand, when mutual export arrangements were agreed upon. Mr. Osborne would like to see the closest co-operation possible in all trade matters between Australia and New Zealand.

Regarding N.Z's. export programme. This was now being handled by the Control Board, apart from the Federation. Finance for export came from a Government loan, instead of fixed export guarantee. Any losses made good by the Government in one season were carried forward as a debit against the grower, to be reimbursed subsequently. All export fruit was pooled according to district, variety, and grade. The varieties Jonathan, Delicious and Sturmer accounted for 70 per cent. of the export trade. The export of Apples to U.S.A. from New Zealand was not a promising business.

LIQUEUR FROM APPLES.

Tasmania Will Enquire.

A suggestion by the secretary of the Franklin Branch of the Tasmanian Agricultural Bureau (Mr. Jas. Mason), that Tasmanian waste Apples be used in the distillation of a form of liqueur was recently brought under the notice of the Minister for Agriculture in Tasmania (Mr. R. Cosgrove) by Mr. Edward Brooker, M.H.A.

Mr. Brooker stated that experiments had already been carried out, and that Mr. A. G. Ogilvie, K.C. (Premier of Tasmania) would look into the matter while abroad, and urged that the Department of Agriculture carry out investigations.

Mr. Cosgrove promised to refer the matter to the technical officers of the Department of Agriculture.

THE SUGAR EMBARGO.

It would be idle to deny that there is strong resentment throughout Australia because of the renewal of the sugar agreement by the Federal Government. And, this, despite the special pleadings of our Queensland friends.

Housewives' associations in several States have been most emphatic in their disapproval.

In the course of a debate in the Federal Parliament, Mr. Lazzarini (New South Wales) said, "I contend that in its operations in Australia, the Colonial Sugar Refining Co. is still exploiting not only the public, but also the sugar growers and the workers in the sugar industry."

The Sugar Consumers' Association states that if the Ministry's proposal to extend this agreement to 1941 is given effect to, Australian sugar consumers will have been robbed of £100,000,000!

The fruit industry is probably the greatest sufferer because of the continued high price of sugar.

OBITUARY.

Sympathy is expressed to Mr. E. J. Mulvaney, ex-Secretary of the Commerce Dept., in the death of a daughter—who was killed in a motor accident at Sorrento.

To Mr. Victor R. McNabb, of Ardmona, in the loss of his wife.

To Mr. G. H. Sprague, of Hastings, in the death of his father.

What Our Growers Are Thinking.

Need for Export Regulations — Are Regulations Too Strict Re Arsenical Residue and Codlin Stings? — Conference Between Growers and Department Advocated — Root Borer — Black Spot Control.

Export Growers' Difficulties.

Regulations Needed, but are they too Strictly Administered?

MOST GROWERS now realise that if Apple growing is to be made into a successful industry in these days, **some amount of regulation** is necessary.

For this to be a success, however, it is essential that all parties concerned should be reasonable, and look at all questions involved from more than one point of view.

Not only is this a necessity for success, but also it would help towards smooth working and the absence of friction.

To take two points: (1) The removal of

arsenical residue

on Apples.

Some growers blame the Government departments, because they say that all growers must spray to kill the codlin grub, and then say that all Apples for export must be free from arsenate of lead.

It is evident that these are quite separate points.

On the other hand, it hardly seems reasonable to put all the responsibility on the grower, and carry out the regulations with absolute rigidity. For example, if the Apples are usually examined after they have been unwrapped in a shop in England, and practically every Apple has been wiped, it appears to the grower (especially in the rush of the busiest season of the year) if every Apple in every case must be absolutely clean, that that does not give any consideration to the growers' position.

Possibly, a little explanation as to the exact position might "clear the air."

Most growers realise that owing to the strictness in England there should not be any appreciable appearance of arsenate of lead on the Apples, just as most of the growers realise that badly "spotted" and inferior fruit should not go to England, which leads to the second point,—whether the

regulations as to blemishes

have gone to the other extreme. For example, whether a well-colored "Jonathan," which has a slight graze or limb mark, or slight mark left where a black spot has been killed by the fungicide, is a defect which spoils the appearance and sale of an Apple.

This would seem to be a point which might be considered by the growers, the retailers in England, or those who represent their views, and the Government horticultural officers.

Both the growers and the horticultural officers ought to have the success of the industry as their objective, and if more could be done in the way of friendly conferences, in which each side tried to look at any questions under consideration from both points of view, it ought to be possible to carry on successfully and harmoniously.

—Tyabb Correspondent.

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WIRE TYING MACHINES
STAND THE TEST FOR
LOWEST FINISHED COST
AND DEPENDABLE GERRARD SERVICE
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SYDNEY. BRISBANE. ADELAIDE. PERTH.
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APPLE AND CITRUS PACKING CHARTS ARE AVAILABLE FREE ON APPLICATION — GERRARD SERVICE

Orchard Free of Black Spot Without Spraying

No Fungicidal Spraying for Ten Years.

Importance of Adequate Drainage.

TO HAVE AN ORCHARD FREE from black spot without the use of fungicidal sprays is most desirable, but unusual, at least in the Eastern States of Australia. This, however, is the experience of an Apple grower, Mr. H. Smith, of Portland, Vic., a consistent prize winner at local shows. He has an area of 10 acres under Apples, the varieties being Delicious, Jonathan and Democrat. The soil is grey loam.

Although Mr. Smith has not sprayed with fungicides for ten years, the foliage and fruit of the trees are quite free from black spot fungus. This is so remarkable as to warrant scientific investigation. Mr. Smith performs the usual spraying programme for codlin moth with three sprayings of arsenate of lead.

Intensive Drainage System.

As to the theory regarding there being no black spot, Mr. Smith attributes this largely to the fact of the intensive drainage system. In addition to a network of underground drains which consists of agricultural drain pipes to every second row throughout the orchard. He repeatedly ploughs to the trees, leaving a furrow in the centre of each row and down the slope.

* * *

Why Early Leaf Fall?

Mr. Smith has one problem this season he has not solved. About the first week in March, 60 per cent. of the leaves from his Jonathan trees dropped, but by the first of April no further dropping of the leaves occurred. During this period of dropping the weather conditions were normal and the trees were carrying a good crop of Apples.

Black Spot Control: Mr. J. H. Jacklyn, now of Brisbane, and previously a grower in Tasmania, writes stating he noted the Victorian experiments in the control of Pear black spot — three sprayings necessary. On his orchard in Tasmania he had no black spot for 14 years, and used only one spraying of Bordeaux mixture—"the right mixture is needed at the right time."

Apple Root Borer.

The need for continued research by the Agricultural Department to find a remedy for the root borer pest is stressed by a reader in the Goulburn Valley.

In the "Fruit World" for March, page 132, the experiences of growers and of Mr. F. S. Fish, M.Agr.Sc., Government Biologist, are quoted. Contributions from readers on this subject would be welcomed.

NEW COMPANIES REGISTERED.

H. J. HEINZ CO. PTY. LTD., importers, exporters and manufacturers of all kinds of foods, pickles, etc. Capital, £25,000, in £1 shares. Names in memorandum: Cuthbert Peirce Berry, 1 share; William Burgess Cormack, 1 share.

GARDEN VALE PRODUCTS LTD. (N.S.W.)—registered 25/2/35. Capital: £20,000 in £1 shares. Objects: To carry on the business of vegetable preservers, canners, jam manufacturers, etc. Subscribers: Lancelot W. Shirley, Herbert F. Vaughan, Geoffrey V. Davy, William McMahon, John W. Galloway, Henry G. Allars and Hector Mackie (1 share each). Registered office, Sydney. (Lodged by Allen, Allen and Hemsley, solicitors, Sydney.)

ORANGE HYDRATED PRODUCTS, Glengarra Orchard, Towac-road, Orange, and 13 Stanley-street, Chatswood, N.S.W., fruit and vegetable, etc. Commenced 14/2/35. Proprietor: John I. Palmer. Registered 13/2/35.

TAR DISTILLATE WASH

Trials Extending Over the Last . . . . Four Seasons have Proved that

COOPER'S OVICIDE

is Definitely in a Class of its Own

The Discriminating Grower . . . will Always Use COOPER'S ● — SOLD IN — **40 gall., 5 gall., 2 gall. and 1 gall. Drums**

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SOLE MANUFACTURERS

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4 O'Connell Street, Sydney

Prepare Now for Winter Spraying

Value of Tar Distillate Sprays for Green Peach Aphis

(By Keighley M. Ward, Assistant Entomologist, Victorian Department of Agriculture.)

THE USE OF TAR DISTILLATE sprays on deciduous fruit trees, particularly Peach and Nectarine trees, against the green Peach aphid (Myzus persicae Sulz.) has increased fairly rapidly in Australia.

Tar distillate, or tar oil, used in spray fluids belongs to the aromatic series of organic compounds, and is a distillation product of crude tar, which is obtained as a by-product in the manufacture of commercial coal gas. Tar-oil sprays differ from lubricating-oil sprays in that the latter are derived from petroleum or mineral oils (aliphatic oils).

The use of the material has been confined to deciduous fruit trees which were quite dormant, and when applied to trees just emerging from this state, or to trees bearing foliage, severe injury has resulted. It seems possible, however, that foliage sprays may be developed from the material when more exact knowledge concerning its insecticidal action is available.

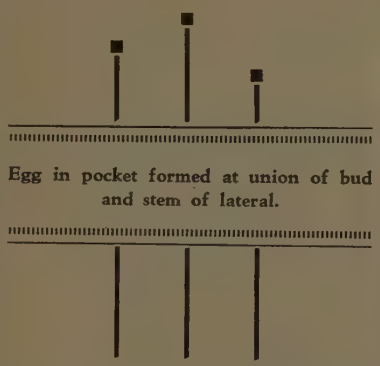
Efforts are being made to extend the range of usefulness of tar oils by incorporating petroleum oil in tar distillate emulsion. By this method it is hoped to be able to obtain complete control of a number of insects, including San José scale and Apple capsid bugs, which were only partially controlled by straight tar distillate. This work is still in the experimental stage.

Experimental work on the use of tar distillate sprays has been carried out in N.S.W. and Victoria. Investigations were initiated in 1929 in the Murrumbidgee Irrigation Area of N.S.W., while the Victorian work was commenced a year later. Tar distillate washes are being used in increasing quantities in the Peach-producing areas of both States.

In Victoria the use of tar distillate against other insects attacking fruit trees has not been investigated as fully as its use against the green Peach aphid. **Field tests of a preliminary nature are being made against the black Cherry aphid, San José scale and Bryobia mite. Results obtained from these tests do not permit of conclusions being drawn as yet.**

Effects on Fruit Trees.

Commercial tar distillates now in use are essentially dormant period sprays, and will cause injury to leaf and fruit buds if applied to trees not completely dormant. Even weak dilutions of the sprays apparently cannot be used on foliage without causing injury.



Egg in pocket formed at union of bud and stem of lateral.

Directions for Using Tar Distillate.

The use of tar distillate sprays in Victoria has been fairly fully investigated only with regard to the green Peach aphid. Therefore, the following directions apply to their use against this insect only.

Time of Application. — Since the winter eggs of the aphid commence to hatch early in July, it is advisable to apply the material between the last week in June (by which time egg laying is usually completed) and the second week in July. Whenever possible, calm days should be selected for the spraying, and the material should not be applied when the trees are wet, during a frost, nor when the temperature is below about 45 degrees F. It is not necessary to delay spraying until after the trees are pruned, since unpruned trees do not require more spray material than pruned.

Strength of Mixture. — The rate at which tar distillate should be used is 3 gallons of concentrate in 100 gallons of spray mixture, or according to the directions given with each of the several brands on the market. In experimental work in the Goulburn Valley strengths of 1 in 40 (2.5 per cent.) and 1 in 70 have given fairly effective control of the aphid. Where a mixture weaker than 3 per cent. is used the quantity of spray mixture applied to each tree should be increased.

Method of Spraying.—Since the eggs of the aphid are very small, and are deposited close in to the side of the buds and in small cracks in the bark, it is very important that trees be sprayed thoroughly if satisfactory control is to be obtained. Special attention should be given to laterals at the tops of the branches, since these are the most easily missed. Every part of the tree must be wetted.

In view of the burning effect which tar distillate has on the skin, spraying should be carried on in such a way that the operator is able to avoid spray drift. This can best be achieved by spraying with the wind as much as possible, and not against it.

When stock tar distillate emulsion has been standing for a considerable time it may separate out into various layers, therefore, before using the material it should be thoroughly mixed in the container, e.g., by rolling backwards and forwards.

Protection of Operator. — The spray operator should take precautions to prevent himself from becoming severely burned while applying tar distillate. In the first place he should keep out of the spray drift as much as possible. Secondly the face should be protected by means of a suitable mask with goggles for the eyes, or by means of some protective substance smeared liberally on exposed skin. So far, the most suitable material found here for this purpose is castor oil. Petroleum grease, such as vaseline, has been found ineffective in many cases, especially when spraying in sunshine. According to Hartzell and Parrott the burning of the skin may often be reduced by washing with vinegar, diluted at the rate of one part to three parts of water. Finally, the operator is reminded that the horses drawing the spray pump will probably be susceptible to the burning by the spray, and they should be protected by waterproof covers.

Mr. K. M. Ward, after a thorough study of the green Peach aphid, prepared a remarkably valuable report, which was

"VALLO" Ovicidal Wash

(TAR DISTILLATE)

THE PERFECT WINTER WASH FOR FRUIT TREES

During recent years, much consideration has been given to Tar Distillates as a Winter Wash for fruit trees, and as a result of extensive research and careful experiments, "VALLO" OVICIDAL WASH is put forward as a means of control of Aphids and other destructive insects.

During Autumn, the eggs of Aphids and other destructive insects are laid on the shoots and branches of the tree, frequently many eggs being laid together, and they are usually well hidden from view. These eggs hatch out during early Spring and cause untold damage to leaves and young shoots and also distorted growth and loss of vigour to the trees.

The greatest contributing cause of unsuccessful control of these pests is in the fact that spraying is frequently carried out when the mischief has already been done.

"VALLO" OVICIDAL WASH is to be used during the dormant period of the tree, and, if used in strict accordance with directions, and properly applied, will give 100% immunity from Aphid infection.

A considerable saving is effected by using "VALLO" OVICIDAL WASH for the reason that it will obviate the necessity of Spring Spraying for Aphis, thereby saving a considerable amount of time and labour.

Recommended dilutions determined after tests in many Fruit-growing areas:

APPLES AND PEARS: Use 4 gallons of **"VALLO" OVICIDAL WASH** to make 100 gallons of Spray. Spraying may be carried out with entire safety up to the end of August, but is not recommended for use at any later period.

PEACHES, NECTARINES, CHERRIES, PLUMS, AND OTHER STONE FRUITS: 3 gallons of **"VALLO" OVICIDAL WASH** to make 100 gallons of Spray. Spraying should be carried out during June and July.

Package: Barrels, 40 gallons; Drums, 5 gallons.
Cases: 2 x 4 gallon tins; 8 x 1, gallon tins.

Manufacturers:

VICTOR LEGGO & FARMERS LIMITED

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FOR A REAL SALES SERVICE Under the Personal Supervision of the Directors

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FRUIT BROKERS & COMMISSION SALESMEN **Covent Garden, London.**

Sole Selling Agents in London for the South Australian Government for Fresh Fruits.
An All the Year Round Clientele for Apples, Pears, and Oranges. Sales by Private Treaty or Auction as desired.

N.S.W. Representatives.—Macdermott & Sheedy, Municipal Fruit Markets, Sydney.
West Aust. Representative.—A. Hicks, 18 William Street, Perth.
Victorian Representatives.—Messrs Gollin & Co. Pty. Ltd., 561 Bourke Street, Melbourne.
Bankers:—National Provincial Bank Ltd., Long Acre, London. Cable Address:—"ORLEMFRUIT," London.

FRUIT TREES
Of Outstanding Quality

An Exhibit of our Fruit Trees will be made in the HORTICULTURAL BUILDING at the ROYAL AGRICULTURAL SHOW, —— SYDNEY. ——

True to name, healthy and well-rooted. Citrus trees in large quantity — Budding Wood supplied by the Bud Selection Society of N.S.W. — Worked on LEMON, SWEET ORANGE, and TRIFOLIATA Stock.

CATALOGUE FREE ON APPLICATION. ESTABLISHED 1901.

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Pennant Hills Road, CARLINGFORD, New South Wales Phone Fpping 96

Eggs at apex of Peach lateral.

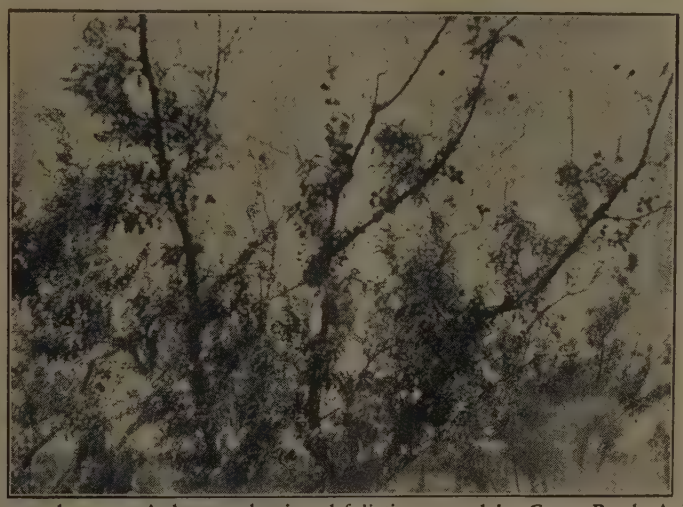
issued in booklet form by the Victorian Department of Agriculture. This booklet, while necessarily technical, is worthy of close perusal by all interested. We publish hereunder a short summary of the findings:—

Considering the results as a whole, their most outstanding feature is the high egg-killing efficiency of the Long Ashton tar distillate, and the consequent high degree of control that it exercises over the aphid. According to the laboratory tests already described, and field observations made in 1928, lime sulphur also is highly toxic to the eggs. However, the inconsistency between laboratory and field results from this material set out in this paper indicates that further tests are necessary; and such tests are desirable, since lime sulphur might be used as a dual-purpose spray against M. persicae and various fungus diseases, e.g., Peach leaf curl (Exoascus deformans). Red oil, when used against the egg stage of the aphid, does not provide a reliable means of control.

The consistency of field results over a period of four years proves that in Victoria the aphid can be controlled solely with measures directed against the egg stage.

The green Peach aphid (Myzus persicae, Sulz) is the principal insect pest of the Peach in Victoria. Severe, general outbreaks occur spasmodically, causing serious reductions in Peach and Nectarine crops. Smaller, local outbreaks occur almost every year in Peach-growing districts, necessitating the constant use of control measures. It appears that infestation of Peach trees takes place solely from winter eggs.

Field observations on the life history show that the aphid is a normal, migrating species, in winter existing on the Peach in the egg stage, and over-summering on a wide range of herbaceous plants. The egg stage is short, and in the four winters over which observations extend the eggs commenced to hatch before the minimum winter temperature had been reached.



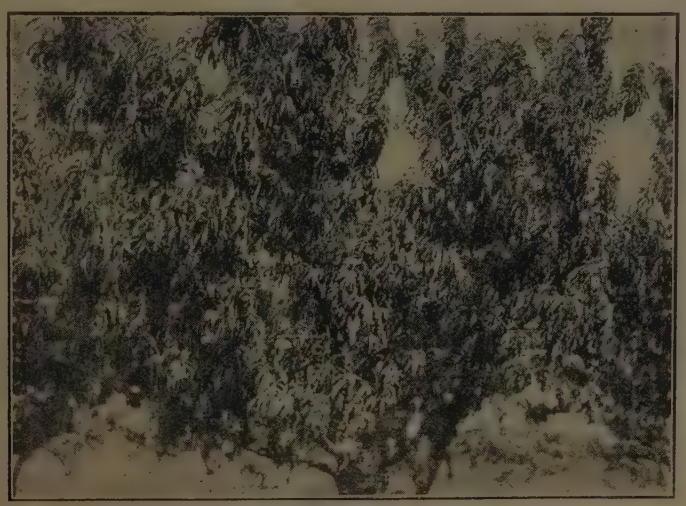
Unsprayed tree at Ardmona, showing defoliation caused by Green Peach Aphid.

An examination of meteorological records of the Goulburn Valley for the years 1927-1932 (which included two years in which outbreaks occurred) indicates that there is no prospect of being able to forecast a general outbreak. Earlier records require to be examined to extend the range of the observations.

A list is given of several species of Hymenoptera and various predators which were noticed to be associated with Myzus persicae. Most of the hymenopterous forms have not previously been reported as attacking the aphid in Victoria.

Laboratory tests with various ovicidal spray materials show that a tar distillate wash, prepared according to a formula devised at Long Ashton, England, is most toxic to the eggs of M. persicae. Lime sulphur also is highly toxic, and red oil is least effective.

Field trials with these materials show that a single application of an efficient ovicide made early in July will give satisfactory control of the insect, and trees will not become reinfested in the following spring.



Tree sprayed with tar distillate winter wash at Ardmona.
Illustrations by courtesy Journal of Agric., Victoria.

VICTORIA— Fruitgrowing at Bayswater Association Meetings - District Notes

Fruitgrowing at Bayswater

IT WAS A PLEASURE to visit the 30-acre orchard of Mr. H. R. Chandler, at the Basin, near Bayswater, Victoria, early in March. Thirty-five years ago Mr. Chandler commenced on 11 acres, gradually extending the area until to-day the property is over 100 acres in extent.

The principal Apple varieties grown are Jonathan and Statesmen. The last mentioned variety was previously known as Chandler, it having been raised by Mr. W. Chandler, Senr., at his orchard at Malvern, Victoria, 65 years ago.

It is of interest to record that a sport from Statesman is proving to be a particularly good variety. This variety is known as Warrior. It is in fact a red Statesmen. The tree is a sturdy grower, and produces excellent crops. It is a good export variety, and has proved particularly suitable for export to the Near East.

Noticing three red Apples on a spur on one limb of a Statesman tree, the other portions of the limb were cut away to enable this particular spur to develop. Subsequently buds were taken, and the variety now known as Warrior was fixed. Mr. Chandler has performed good service for the industry in developing this variety.

Mr. Chandler is now growing a red sport of Shorland Queen. It came from the orchard of Mr. J. Stevens, at Blackburn. This variety is named "Just-it," and was given to him by Mr. Walter Mock. This is a blushing red Apple, heavy cropper. Other varieties noted were the red Rome Beauty (Ohio red), which differs from the familiar red Rome known as Glengyle.

One of the most interesting varieties noted was a highly colored sport from a Jonathan tree. This Apple is a Jonathan in all its general characteristics of growth, flavor, etc., but the color is remarkable. In its early stage of development it is red when other Jonathans are green, and when finally mature the Apple is wholly red. Strangely enough, when a load of these highly colored Jonathans was delivered to the Victoria Market early this season, buyers expressed grave doubts as to the Apple being a Jonathan, because the ordinary Jonathan had nowhere near as much color. As the season advances these highly colored Jonathans are much sought after.

Among other varieties noted were Democrat (Tasma), a good variety for the Sydney market. Mr. Chandler had several acres of Yates, but these have been worked over to Democrat, Granny Smith and Just-it.

The Well-kept Orchard of H. R. Chandler

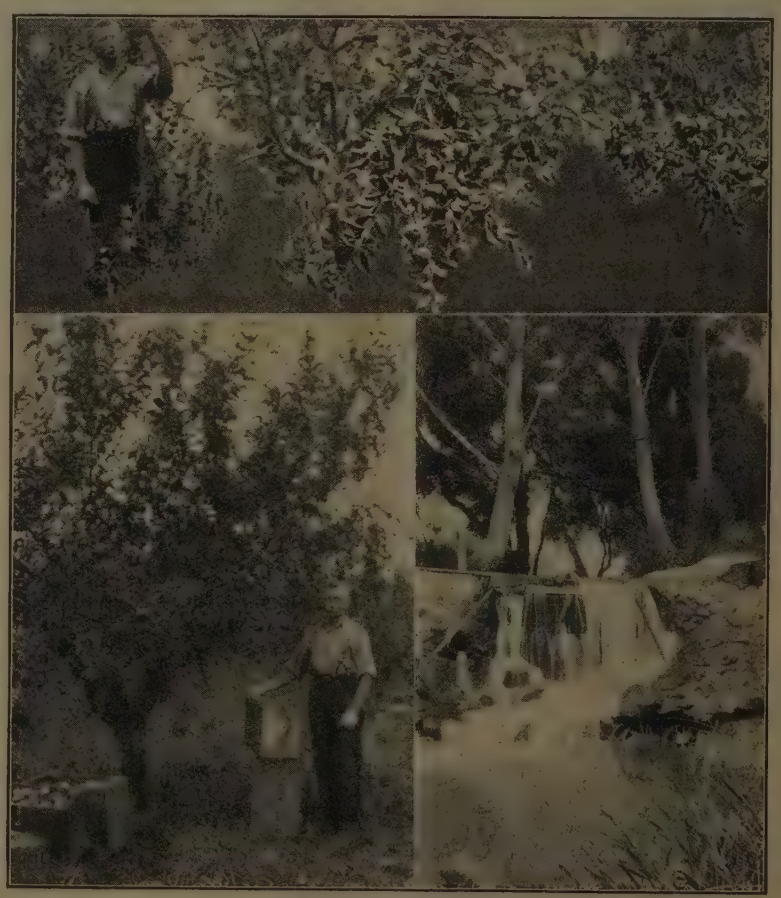
New Varieties Being Tested

Novel Picking Bag.

A novel picking bag has been developed by Mr. Chandler. This is really a wide apron; the lower outer edges are sewn together, and can be lifted over the head, thus forming a bag in front of the picker, whose arms are free, the weight being carried on the waist and the back of the neck. When full the loop is lifted back over the head and gently lowered into the case; the apron is then drawn back, leaving the fruit in the case. If properly used this does not bruise the fruit.

No definite manurial programme has been followed. Weed growths are turned under in the spring. However, this matter is not being lost sight of. The ground appears to be naturally fairly rich.

Despite a vigorous spraying programme, there was a fair amount of



Top.—Warrior (Red Statesman) in H. R. Chandler's orchard. Heavy bearer, limbs spread outward when bearing, no need of props, stems straighten when crop picked.
Left.—Delicious Apple Tree. Mr. H. R. Chandler in picture.
Right.—The Dandenong Creek flows through the property. Water diverted just above waterfall drives water wheel for generating electricity.

loss this season, from both codlin moth and black spot. Apart from spraying, orchard sanitation was carried out thoroughly, including the sterilising of cases in boiling water and placing chemical bandages on the butts of the trees. Mr. Chandler believes that the arsenate of lead supplied is not up to standard quality, and that this matter should be investigated by the Department of Agriculture.

Mr. Chandler has developed a

country trade for Apples.

He regrets that some other Victorian districts are in the habit of supplying country districts with poor quality and windfall fruit. This fruit is apparently taken to country districts by motor trucks, the fruit having been purchased from the growers at a small cost. This trade, Mr. Chandler considers, is no good to the growers who supply the fruit, and is not really cheaper to the public, when defects are accounted for, than good fruit. The hope is expressed that this trade in inferior fruit would be stopped, either voluntarily by growers or by the action of the Department of Agriculture.

In the packing house, a "Lightning" grader has been installed.

As regards the Victoria Market, Mr. Chandler has had an application in for a stand for the past four years, but he is still on the waiting list.

A New Plum.

Both English and Jap. Plums are grown at this orchard, the varieties including Wickson, Santa Rosa, October Purple, etc. In his flair for new varieties, Mr. Chandler has a remarkably **good seedling blood Plum,** which is deemed to be superior to Satsuma, being suitable both for eating and for preserving. From the characteristics of the Plum, it is thought to possibly be a cross between October Purple and Delaware. So valuable has this Plum become, that other trees have been worked over to this variety. Buds have already been supplied to other districts.

Flowers and Vegetables.

Apart from the orchard activities, Mr. Chandler grows both flowers and vegetables in substantial quantities. He has ten acres under Daffodils, the flowers of which are sold. The flower section is actively dealt with by one of the sons, Mr. Gordon Chandler. Over 50 varieties of Liliums are cultivated, and in addition a patch of ground not otherwise usable has been turned into a pond for growing Water Lilies. Asters are also grown for the cut flower trade.

In the market garden section, we noted Pumpkins, Tomatoes, Beans, Maize, etc. The Hickory King variety of Maize is grown, the young cobs being readily bought for culinary purposes. The Canadian Wonder Bean has been grown successfully, also Staleys Brown Beauty.

The Dandenong Creek flows through the property, and Mr. Chandler has used his ingenuity in raising the water and diverting it along a channel to the lower portion of the ground, thus providing a flow of water sufficient to turn a water wheel for generating electricity for household purposes.

This orchard is situated in a charming position on the foothills of the Dandenong Ranges, the scenery around Olinda being in full view of the property.

Mr. Chandler takes an active interest in all matters concerning the betterment of the industry. He is a member of the Croydon Cool Store Trust, and also has shares in the Ringwood Cool Stores. Mr. Chandler attends the conferences of the Orchardists and Cool Stores' Association as a delegate from Croydon.

The Chandler family is well known and highly respected in this section of the State. There are several branches of the family, all connected with phases of fruit and flower growing, nursery work and bulb production. In Mr. H. R. Chandler the family is worthily represented.

The late Mr. A. E. Chandler, M.L.C., was a brother to Mr. H. R. Chandler, whose orchard is herein described.

The property is well cared for with the aid of the sons, Hugh, Gordon, and Keith.

ISN'T IT A PITY?

Throughout the country districts —in Victoria at least—large quantities of inferior Apples are being sold by hawkers. Much of the fruit is spotty and affected with codlin.

Thus this valuable country trade is being spoilt. The market is there for good fruit at good prices. Why should the trade in this windfall stuff be permitted?

Combined action by both growers and the Department of Agriculture is needed to stamp out the evil.

The Orange crop in Victoria is earlier this season. The packing of Navels commenced in Mildura before the end of April.

Southern Fruitgrowers' Association

More Accommodation Needed at Victoria Market—Black Spot Research to be Continued.

AT THE APRIL MEETING of the executive of the Southern Fruitgrowers' Association there were present — Messrs. W. A. Thiele (chairman), F. G. Beet, V. Lawford, G. F. Fankhauser and J. W. Aspinall. Apologies from O. White and R. Finlay.

The president and secretary reported on meeting at Blackburn called to discuss more accommodation at the Victoria Market. A committee of six was appointed, with three members of the advisory committee, to wait on the markets committee.

The deputation waited on the committee on April 4, supported by Col. Knox, W. H. Everard and A. J. Kirton, M's.L.A. Members of the deputation placed before the committee how the primary producer was suffering through lack of accommodation. After hearing views expressed, the chairman stated that the matter would receive favorable consideration. Several members of the markets committee also spoke in support of the views put forward by the deputation.

Darling Harbor, N.S.W. The Fruitgrowers' Federation, N.S.W., wrote re unsatisfactory facilities for handling fruit and vegetables at Darling Harbor.

It was resolved to support the N.S.W. Federation in any move taken to improve conditions as it affects the handling of fruit.

Circular received from J. M. Ward, Superintendent of Horticulture, dealing with sizes of Pear cases for export, also varieties of Apples that may be shipped overseas.

The Market Research Department, "Herald" Office, wrote forwarding pamphlets on the Apple growing industry and the problem of its surplus.

It was decided that a letter be forwarded thanking the "Herald" for the interest taken on behalf of the fruit industry.

Fruit Trees & Fruit Tree Stocks

Splendid Stock of Healthy Plants Available.

Apples, Peaches, Pears, Plums, Apricots, Citrus, etc., packed and despatched to all parts of the World.

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Rid your orchard of red spider, red mite, scale, aphis and other pests. You can best do so by using Shell Prepared Crude Spray—the full dormant-spray preferred by the most successful growers. Not only will you utterly eradicate the pests and leave your trees clean and healthy but you will be helping yourself to keep overhead costs down to a minimum, for Shell Prepared Crude Spray is lower in price than other oils ——— which are less efficient. ———

Write to the nearest Shell office for a copy of the valuable booklet— "Prevention of Damage by Frost."

SHELL SPRAYING OILS

Full particulars of Shell Prepared Crude Spray, Shell Redspray and Shellicide D supplied on application.

S.O.1

Farmers' Convention. Mr. G. Fankhauser reported on conference held at Warrnambool in connection with the Chamber of Agriculture.

Annual Meeting. Affiliated societies are asked to send along items for agenda paper for the annual meeting, the Minister for Agriculture, Mr. Hogan, M.L.A., to be invited to open same and speak on marketing.

Black Spot Research. Mr. Thiele reported on meeting at Doncaster to discuss further continuing experiments dealing with Black Spot. It was decided to carry on for a further twelve months at the orchard of Mr. W. A. Thiele, and that the secretary remind those who have promised to donate that their help will be thankfully received.

Show Reports

Pakenham. — At the Pakenham and District H.S. annual show, held on March 30, the winner of the Colombie Cup Competition was W. H. Black, with 92 points; J. J. Ahern was second with 82 points, and D. C. and W. M. Black third with 81 points.

The Pakenham Upper School won the Gerrard Challenge Shield for Apple packing.

Awards in the fruit sections were as follows:—Open Championship Collection: D. C. and W. M. Black, 1; W. Sheldon, 2. Case of Jons. (championship): Miss Nell Black. Jons. for Export: W. H. Black, 1; J. J. Ahern, 2. Apples—Two Cases—2¼-in., 2½-in., for Export: D. C. and W. M. Black. Wrapped and Packed for Export: D. C. and W. M. Black. Dessert Apples: D. C. and W. M. Black. Jons., 2¾-in.: W. C. Harvie. 2½-in.: W. C. Harvie. Del.: F. Kennedy. King David: Mrs. Schreuder. Pears.—Packham Triumph: F. Kennedy. Any Other Variety: F. Kennedy. Passionfruit: N. Mapleson. Quinces: Mrs. Schreuder. Peaches: R. Snodgrass. Apple Packing: L. Stuchberry, 1; K. Liversha, 2. District Exhibit: Army Road.

Ringwood. — At the Ringwood Show, held on April 1, awards in the fruit and vegetable sections were:—Fruit.—Culinary Apples: A. J. Upton. Dessert Apples: H. N. Read. Stewart Seedling: J. F. Thiele. Del. Apples: J. R. Newman. G. Smith: A. J. Upton. R. Beauty: H. N. Read. Yates Apples: Phillip Jacob. Five Crown: A. J. Upton. Jon., 3 inch and over: H. N. Read. 2¾ Inch and over: A. J. Upton. Tray of Jons.: J. F. Thiele. Tray of G. Smith: J. C. Newman. Tray of Any Other Varieties: J. C. Newman. Tray of Stewart Seedlings: J. C. Newman. Keiffers, Hewill, Winter Cole, B. Bosc., Jos., Packham's T., Winter Nelis, and Broom Park Pears: J. F. Thiele. Tray Keiffer's Hybrid Pears: M. R. McKinlay. Quinces: E. T. Miles. Lemons: Mrs. P. Jacobs. Raspberries: J. D. McArthur. Aggregate points Pears (blue ribbon), J. F. Thiele.

Wallington.—In opening the Wallington fruit show, on April 13, Cr. Richardson urged growers to pay particular attention to accurate grading.

The district orchard supervisor (Mr. H. L. Hatfield), who judged 350 entries, said that no better exhibition could be provided in any part of the State. Results:—Jons. (less than 3-in.): P. Ling. Jons. (3 inches and more): E. and C. Harding. Dunns: P. Ling. Dels. (less than 3 ins.): E. and C. Harding. Dels. (3 ins. and more): E. and C. Harding. Stewarts: P. Ling. Pomme de Niege: E. and C. Harding. Reinettes (3 ins. and more): F. Jury. Red Romes: E. and C. Harding. Granny Smiths: O. Harding. Winesap: E. and C. Harding. Romes (3 ins. and more): P. Ling. Romes (less than 3 ins.): C. Harding.

Dessert Pears: P. Ling. Tasma (Democrats): E. and C. Harding. Culinary Pears: E. and C. Harding. Dessert Apples (3 ins. and more): E. and C. Harding. Culinary Apples (3 ins. and more): E. and C. Harding. Tray of Jonathans: C. Harding.

Cheltenham.—Awards in the fruit section of the Cheltenham Presbyterian Horticultural Society's show, held on March 30, were as follows:—Case of Export Apples: Edward Bros. Case Apples (any variety): R. J. Thornell. Tray Export Apples: R. J. Thornell. Apples (three varieties): F. H. Fisher. Tomatoes (any variety): J. Barker. Jonathan: R. J. Thornell. Apples (dessert variety): R. J. Thornell. Five Crown Apples: R. J. Thornell. Granny Smith Apples: R. J. Thornell. Culinary Apples: F. H. Fisher. Quinces: H. Rankin. Lemons: Mrs. B. Morris. Figs: E. W. Olley.

In the vegetable section the following exhibitors were successful:—A. and H. Marriott, W. Harvey, E. Hough and Son, T. Butler, G. Miller, W. Rich, Miss A. Hallabone, W. J. Marriott, F. W. Morris, C. and L. Davie, G. Stayner, W. Rich, J. J. Boxshall, A. Billings, J. Hodge, J. Barker.

Warandyte.—Successful competitors in the fruit section at the South Warrandyte show, which was opened by Mr. Everard, M.L.A., were — S. Knee, G. Tortice, J. Coleman, C. A. Cameron, J. White, Nancy Scarborough, Mrs. Waldon, E. Smith, Mrs. Cameron, E. A. Milne and Miss B. Darbyshire.

APPLE PACKING.

Counts Recommended in Preference to Sizes.

Regarding statements made from time to time that Australian Apple cases arrive in England with less than 40 lb. of fruit in the standard case, the Superintendent of Horticulture (Mr. J. M. Ward) states that it would probably be in the best interests of the Apple industry if regulations were framed to prevent the branding of Apple sizes in such cases. **All other countries, and a large number of Australians, brand on the case the number of Apples contained therein, and not the diameter of the fruit.**

It has been found impracticable to pack 2⅜-inch Apples of certain varieties in this case unless a large percentage of small 2½-inch Apples is included.

Under rigid adherence to "size" packing, instead of "counts," many cases only contain 37 to 38 pounds of Apples.

Some of the "counts" for the Canadian case are between the sizes used in the "dump" case, thus the large 2½-inch should be packed with the small 2½-inch, and branded 198 count.

RESEARCH LABORATORY AT MERBEIN.

Progress is being made with the erection of the Research Laboratory at Merbein, under the auspices of the Council for Scientific and Industrial Research. The research laboratory is estimated to cost £4,000, and the new equipment is valued at £2,000.

Particular attention will be paid to research problems affecting citrus and other fruits.

"Victoria Mark" Fruit

Prizes Offered at Melbourne Royal Show.

At the April meeting of the council of the Royal Agricultural Society of Victoria, an offer was accepted of a prize of £5/5/- from the Victoria Mark Fruit Company for the exhibitor gaining the greatest number of points on the basis of three points for a win, two for a second, and one for a third in open classes for Apples and Pears at the next show. The company also offered £2/2/- for an essay on fruit marketing and quality, and £2/2/- for the best packed case of Apples for export, packed by a school pupil attending a packing class conducted by the Department of Agriculture. The offers were accepted.

Victoria Mark Fruit Exported

1,000 Cases Romes for London.

A PROGRESSIVE STEP has been taken by the Victoria Mark Fruit Co. Ltd., in sending 1,000 cases of Apples to London under its Extra Fancy Victoria Mark label.

The variety is Rome Beauty, and the Apples came from the orchard of Messrs. Ford Bros., of Harcourt, Vic.

The manager of the Victoria Mark Fruit Co. Ltd. (Mr. G. H. Anderson) states that this line of 1,000 cases of Romes is among the best he has ever seen.

The attention of the Victorian Agent-General has been directed to the consignment, and particulars have also been sent to the British press.

The fruit went forward on the s.s. "City of Winchester."

New South Wales News and Notes

Fruit Crops in N.S.W.

THE LATEST REPORT from the N.S.W. Dept. of Agriculture, re fruit crops, the following is stated:—

In a number of inland districts, **Apple and Pear** crops were adversely affected by dry weather and frosts. In the Bathurst area, late varieties of Apples were reported to be lacking satisfactory size.

Considerable quantities of Jonathan, King David, Cleo. and Granny Smith Apples were despatched overseas from the Young district. From Griffith (Murrumbidgee Irrigation Area), where heavy crops of Granny Smiths were in evidence, a quantity was consigned to overseas markets.

The Apple crop at Batlow is of good quality, but hail damage appears to be widespread. The variety "Lalla" has developed an extraordinary rich red color and should be an acquisition to the industry. Other varieties, e.g., Jonathan and Delicious, have also colored particularly well.

Prune drying has finished in the Young centre; yields are stated to approximate half ton per acre, and the quality of the product is good. Cold nights delayed operations at Griffith.

On the Murrumbidgee Irrigation Area yields of **canning Peaches** were very satisfactory, the bulk of the fruit being clean and of exceptionally fine quality.

Citrus: Reports from coastal districts, with the exception of the Wyong area, where dry conditions were proving adverse to the sizing of fruit, indicate that all varieties were developing satisfactorily.

In a number of groves in the Hawkesbury district, Navels and White Silettas are very forward; some of the latter are coloring.

With regard to Navels, on the Murrumbidgee Irrigation Area it is expected that large sized fruit will predominate owing to the generally light crops being carried. All other varieties appear to be growing well.

Bananas: Conditions generally were favorable to plants and fruit. The December setting of bunches which are now maturing in the Tweed Heads area are estimated to yield about 65 per cent. of sixes, 25 per cent. of sevens, and the balance mostly eights. Some easing of supplies is expected from the Brunswick, Lismore and Woodburn centres, and from the older plantations in portion of the Murwillumbah district.

Around Macksville a number of the 1933/34 plantings have started to bear, but this fruit will probably not reach the market before July. Good quality fruit is being marketed from plantations in the Brunswick district.

Pineapples: A good winter crop is in sight in the Murwillumbah district, but mature fruit is not plentiful. On the Richmond River, crops are heavy, and in excess of local requirements.

Passionfruit: In the Hills district (County Cumberland), vines are making growth and setting fair crops of fruit. On present indications yields promise to be much heavier than those of last season. At Lismore, small quantities of fruit are being marketed at satisfactory prices. Crop prospects are not viewed favorably in this centre.

It is expected that the area under crop in the Murwillumbah district will be increased during next spring.

FOR SALE! FOR SALE!

DEMONSTRATION SPRAY CART

Well known and reputable Melbourne house offers, at a very much reduced price to clear stock,

WELL KNOWN MAKE OF SPRAY CART

(100 Gall. Vat, Outfit slightly shop soiled.)

Full particulars on application—

"Pressure," care "Fruit World."

Sydney Royal Show

High Quality Fruit Shown on Pyramids.

THE 1935 annual show of the Royal Agricultural Society of N.S.W. proved a record so far as general entries were concerned, but the fruit section was not so well represented as it might have been.

A severe hailstorm in January destroyed whatever chance the Batlow District had of repeating its performance of winning, for the fourth time, both Apple and Pear pyramid competition.

Neither Batlow or Bathurst were represented this year.

The Hartley District Fruitgrowers' Association scored a most meritorious win with a total of 90½ points, which was equal to those obtained by Batlow last year.

Goulburn came second with 86 points, and Tallong was third with 83½. Leeton's exhibit was highly creditable. Mr. P. Gersbach was the main contributor.

Mr. H. Broadfoot, pome fruit expert of the Department of Agriculture, who was one of the two judges, spoke favorably of the quality of the fruit, especially as regards color, flesh texture, the absence of insect attacks, physiological troubles, and fungus disease infection.

The points were:—

	Hartley.	Goulburn.	Tallong.	Leeton.
Pomological value	9	9	9	8
Nomenclature	10	10	10	9
Grading	18	17	16	16
Commercial value	25	25	22	17½
Freedom from disease and insect pests	16	13½	14	11½
Staging	8	7½	8	5½
Neatness and alignment	4½	4	4½	3
Totals	90½	86	83½	70½

Only

two Pear Pyramids

were staged this year, the winner being Goulburn. The fruit in the winning pyramid was of outstanding quality. Tallong was second; included were varieties of lesser commercial value. Had growers availed themselves of cold storage to keep the earlier varieties, as the Goulburn growers had obviously done, their fruit would not have been overmature, as was the case.

Points were:—

	Goulburn.	Tallong.
Pomological value	7	8
Nomenclature	10	10
Grading	16	16½
Quality	23	19½
Freedom from disease and pests	16	14
Staging	7	6
Neatness	3½	3
Totals	82½	77

Batlow

AT the recent annual meeting of the Batlow Rural Co-operative Society, the cool stores report for 1934 showed that the space available for cool storage, namely, 60,000 cases, had been used twice over, fruit being stored

as follows:—60,042 cases of Apples and 41,963 cases of Pears on account of packing house shareholders, and 19,948 cases for non-shareholders.

The cool stores committee of management was re-elected as follows:—Messrs. N. L. Quarmby, E. M. Herring, J. E. Dodds, J. Sedgwick and C. Smith.

The committee of management for the packing house section consists of the following:—Messrs. C. Buchele, A. E. Herring, C. J. Butz, E. M. Herring, J. E. Dodds, H. H. Robinson and J. Sedgwick.

In connection with the storage of Apples in the No. 14 chamber, which is fitted with a direct expansion system, it was considered that Yates, Dougherty and Democrat Apples were improved. It was stated that Yates, in particular, were brighter and crisper, and revealed less loss of weight.

One thousand seven hundred and ninety-five bags of Potatoes were also stored.

The principal varieties of fruit were Winter Cole Pears 21,674 cases, Packhams 16,336, Williams 13,188, Granny Smith Apples 8,914, Five Crowns 8,946, Jonathans 8,447, Democrats 7,147. During the year 84,355 cases of fruit were sold on behalf of shareholders, at an average price of 7/2, and for non-shareholders 4,200 at an average price of 6/10. In 1933 sales of shareholders' fruit were 104,606 cases, at an average price of 6/7. The lower average for non-shareholders' fruit is accounted for by the fact that they supplied more jam and canning fruits than better grade fruit for the factories, through the packing house.

The minimum price for single set seed Potatoes this season was fixed at £8 a ton.

Manuring Peach Trees

Successful Methods in New South Wales.

MANURIAL TESTS with Peach trees have been carried out for the past five years at an orchard at Liverpool, N.S.W.

The manurial programme and the resultant yields are as follows (in half-bushel cases) for the 1934-35 season, with the average for the past four years, given in brackets:—No fertiliser, 436 (319); superphosphate and sulphate of ammonia, 654 (517); superphosphate, sulphate of ammonia, and potash, 708 (547).

From the financial point of view, i.e., the average price received by the grower, both treatments have shown a profit on the cost of the fertiliser as applied, whilst, in the current season, the increase of 272 half-bushel cases per acre was a pleasing reward for the grower.

The trees, which are eight years old, are growing in rich alluvial loam, a heavy green manure crop being grown and turned under each year. During the five years the results of the fertiliser trials have been remarkably even. The importance of the humus cannot be overlooked.

In addition to the foregoing, proper orchard management is given as regards pruning and spraying.

DUTY ON LEAD ARSENATE.

The Tariff Board recently heard evidence regarding duty on arsenate of lead. An amending schedule has been prepared providing for a reduction of one halfpenny per lb. The application was opposed by the Victorian Chamber of Manufactures on the ground that arsenate of lead was being supplied at bedrock prices.

Answers to Correspondents

Polleniser for Doyenne du Comice Pear. — "Enquirer," Cambridge, Tasmania, asks:—I would be much obliged if you could tell me if any grower has found a satisfactory polleniser for Doyenne du Comice?

Answer (by E. E. Pescott, F.L.S., Victorian Department of Agriculture). The question of the best polleniser for Doyenne du Comice Pear has not yet been satisfactorily settled; but this year's results show that Josephine and Winter Nelis gave good results, especially the former, with W.B.C. as a very good third. * * *

Answer (by John Brunning and Sons, Somerville). — This particular variety, of which we have a few trees, bears extremely well. The varieties growing in the immediate neighbourhood are Beurre de Capiamont, which we think is mainly responsible, and Winter Nelis, Packham's Triumph with Beurre Bosc flowering at the end of Comice blooms catching the late flowers. Would suggest that Beurre de Capiamont and Packham's Triumph two grafts (full length cuttings with bloom bud at terminal) one of each, be put into the Comice to give the double pollenisation to bring about the desired result.

THE PORT OF HULL.

We acknowledge having received from Burns Philp & Co. Ltd., Sydney, copy of an illustrated booklet entitled "Port of Hull," which has just been issued by the London and North-Eastern Railway.

This booklet contains maps and plans of the docks at Hull and shows the shipping facilities which Hull possesses for trade with the Continent. Other pictures include illustrations of the docks, storage warehouses and facilities for unloading goods. In addition, particulars are given of the City and Port of Hull, its steadily increasing trade, and revealing its importance as a terminal port for Australian goods. The booklet has been capably prepared and attractively printed.

Copies are available from Burns Philp & Co. Ltd., representatives of the London and North-Eastern Railway, 7 Bridge-street, Sydney, N.S.W.

The Port of HULL

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Citrus News and Notes.

NEWS OF INTEREST regarding citrus crops abroad are to hand from Mr. G. A. W. Pope, general manager of the South Australian Government Produce Department, conveying a report by the S.A. Agent-General in London (Mr. McCann), as follows:—

Rhodesian Citrus Fruit.

Practically the whole of the citrus fruits from Rhodesia are shipped to the United Kingdom, and this season (commencing in April) it is expected that 148,000 boxes of Oranges and Grapefruit will be shipped to this market. Last year exports were 153,000 boxes, of which 140,000 boxes—made up of 137,300 boxes Oranges and 2,700 boxes Grapefruit — were shipped to the U.K.

Record U.S.A. Orange Crop.

Latest information from the United States Department of Agriculture shows that the Californian Orange crop is likely to be a record one. Total production is given (February 1) as 56,400,000 boxes.

The Californian crop is now expected to be the largest on record, the latest forecast being that a crop of 41,600,000 boxes is expected.

The increase is largely due to the improved Navel Orange crop which is forecast as 19,600,000 boxes. Valencias are unaltered at 22,000,000 boxes.

Florida production is stated to be 13,600,000 boxes with a commercial crop of 12,100,000 boxes.

Grapefruit production in the U.S.A. is forecast as 16,300,000 boxes against the December estimate of 18,400,000 boxes.

Citrus Advisory Committee.

A Citrus Advisory Committee is operating. This includes representatives of the lower Murray areas, practically from Mypolonga to Swan Hill. The personnel of the committee is as follows:—Chairman, Mr. F. H. Metters, S.A.; Commonwealth members, Messrs. A. V. Lyon, E. S. West; State representatives, Messrs. J. M. Ward (Victoria), C. G. Savage (N.S.W.), A. G. Strickland (S.A.); grower representatives, Messrs. F. H. Metters (S.A.), D. B. Halhed (Victoria), Syd. Taylor (Curlwaa, N.S.W.), with Mr. L. J. Provan as secretary.

Sir David Rivett attends on behalf of the C.S.I.R. The committee also invites the attendance of other workers interested in citrus problems, including Dr. Young (Citrus Preservation Committee), Miss Archer and Mr. Cook (C.S.I.R.). At the last meeting, Mr. F. M. Read, M.Agr.Sc., Victorian Department of Agriculture, attended.

The work of the committee is to collate the available information on citrus problems, to consider avenues for research, and to secure co-ordination of the present investigations, which are being conducted by State Departments of Agriculture and the C.S.I.R.

The Citrus Industry.

Appointment of Export Board Proposed. Five Year Levy Plan.

Addressing the Citrus Conference in Sydney, convened by the Department of Markets, the Acting Prime Minister (Dr. Earle Page) stated that the citrus industry had reached a critical stage. Owing to reduced prices there had been a serious decline in the capital value of the groves, which represented an investment of £8,000,000 to £10,000,000. Quite apart from the economic depression, there was the question of types and varieties, soil conditions, and centres of production in relation to marketing, also maladjustment of supplies to market during the peak of production.

The co-operation of growers was needed before anything of value could be accomplished. Broadly speaking, there was no effective citrus organisation. In the several States there were growers advocating different remedies. Some opposed marketing organisation of any description, others wanted voluntary organisation, others again sought marketing legislation. Obviously, the first need was to reconcile the views of all sections, and to establish a representative organisation to advise the Governments concerned.

"There is a definite limit to financial assistance by the Government," continued Dr. Page. "The Government expects every industry to take the initiative in setting its house in order. **Any assistance in the future must be part of a well thought out plan for placing the industry on a sounder basis.**"

The conference, which was presided over by Mr. J. Heane, president of the Fruitgrowers' Federation, recommended that an Australian citrus board be appointed, and set up a sub-committee to formulate details of the constitution and functions, i.e., export standards, regulation (if necessary) of sales overseas, transportation arrangements, including freight and insurance rates, and trade publicity abroad. The proposed membership of the board was four members from N.S.W., and two each from Victoria and Sth. Aust.

Further recommendations were that the finance for the board's operations be obtained by means of an **excise tax of 1d. per bushel, to be levied for the next five years on all Oranges sold,** and that the Commonwealth Government subsidise the board's receipts obtained from the tax on a sliding scale for the initial four years. The proposed five-year plan for the industry would not commence until the 1936 season, as it was now too late to attempt to commence it in the coming season. In respect of the 1935 season, conference requested that the Commonwealth Government grant either an export bounty of 3/6 per case or guarantee out-of-pocket expenses up to a maximum of 16/6 per case. The conference urged that the guarantee for the 1934 season, which was 13/- per case, be increased to 16/6 per case. The need for organised marketing within the States was affirmed, and it was agreed that whether such organisation should be statutory or otherwise should be left in the hands of the States concerned.

Experiments With Stocks at Irymple.

The Department of Agriculture is conducting some very valuable research work at the grove of Messrs. Leng Bros., at Irymple. Here six acres are devoted to root stocks and other tests. Three acres have been planted with budded Washington Navels and three acres with budded Late Valencias.

The work was commenced in 1931, when Mr. L. J. Provan, M.Agr.Sc., Horticultural Research Officer, of the Department of Agriculture, planted seeds from fruits from Rough Lemon, Sweet Orange and Sour Orange trees, Subsequently the seedlings were worked with buds from selected trees, thus the records are complete regarding both stocks and buds. The growth was very even, although the necessary culling was done to persist with the best plants.

Each of the three acres is divided into fifteen blocks, these blocks being further divided into plots of six trees each. Between the Valencia plantings there are guard rows of Washington Navels, and, similarly, between the Washington Navels there are guard rows of Valencias.

The soil is deemed to be ideal for citrus culture, namely, a Murray Pine ridge above the water level. Water for irrigation has to be pumped to this area.

Measurements are now being taken of the growth of the trunk and the shoots.

Each of the groups of six trees comprise two trees of each of the three stocks mentioned. Although this work commenced four years ago (in 1931) it was only this season that the trees were planted out.

Fundamental work of this character is of first importance to the citrus industry.

With the known history of these control stock experiments, it will be possible to carry out manurial experiments, which could be replicated in such a way as to yield valuable results.

Checking Citrus Tree Yields.

On Captain Halhed's property at Merbein a check is being made of the total production from each tree. From the figures obtained it will be possible to decide as to a manurial programme, and as to how many times it would be necessary to replicate the treatments.

The area has been divided into blocks, and after the necessary preliminary investigations have been made it will be possible to decide as to the next stage, namely, the proposed manurial trials.

OVERSEAS NEWS AND NOTES

The British Fruit Industry.

Comprehensive Control Bill Drafted But Growers Oppose.

DETAILS OF A PROPOSED ACT of Parliament for the Control of the British Fruit Industry, were circulated by the Victorian Dept. of Agriculture recently.

The Bill, as drafted, is a comprehensive one, and deals with the licensing of distributors; circulation of information and market intelligence; grading; processing; transport; market charges; export; advertising and research; minimum prices for fruit for processing; advisory committees of wholesalers, retailers and growers. The levies proposed are: tree fruits 5/- per acre. After enactment, a poll of the growers to be taken to decide if the Act is to become operative.

Growers Oppose Scheme.

On this subject the Agent-General for South Australia writes as follows:—

The National Union of Farmers' Fruit Marketing Scheme is meeting with considerable opposition from growers and growers' associations. A meeting was held in London this week (February) at the Royal Agricultural Hall, and the following resolution was passed—

"That this meeting of fruit growers, representing the larger districts of the country, are unanimously opposed to the Fruit Marketing Scheme of the National Farmers' Union and pledges itself to do all in its power to oppose it."

An Executive Committee was appointed to deal with the matter, and representatives of the following fruit-growing areas were elected: — Kent, Pershore, Wisbech, Cambridge, Essex and Sussex.

Ten Million Cases.

Hawaii Recovers From Depression.

During 1934, Hawaiian growers exported to U.S.A. no less than 10 million cases of Pineapples, including fresh, canned and by-products. This represented a production valued at something like 27 million dollars (£5,500,000 at par).

The industry is reported to be in a very flourishing condition, new plantations are being prepared, and with prices maintained at a satisfactory figure it is estimated that Hawaii has survived the depression period and has literally "turned the corner."

Boom in Fruit Tree Planting in U.S.A.

Californian Nurserymen Sold Out of Trees.

SPECIAL DEMAND FOR APPLE TREES.

THAT U.S.A. has faith in the fruit industry is shown by the fact that Californian nurserymen completely sold out of fruit trees this season.

Mr. G. W. Peart, fruitgrower and nurseryman, of Bairnsdale, Vic., President of the Nurserymen's Association of Victoria, who is now travelling to London via U.S.A., writes from San Francisco on April 1, as follows:—

There has been an exceptional demand for fruit trees in U.S.A. this season. Californian Nurserymen have completely sold out of fruit trees. There was a specially heavy demand for Apples.

"I am writing this," continues Mr. Peart, "because I think it is important that Australian and New Zealand growers should be aware of the fact."

Seed Growing in California.

"Seed growing is in a mammoth way over here," Mr. Peart states, "I have been astounded at the large areas under various kinds of crop."

U.S.A. has 95,000,000 Apple Trees.

Heavy Decline in Ten Years.

It is estimated by the U.S.A. Department of Agriculture that a census to be taken in 1935 will disclose that there are 95 million Apple trees in that country, a decline of 25 per cent. since 1925, and 50 per cent. since 1910.

Several factors go to explain this decrease, chief of which are the loss of over 3,000,000 trees from cold weather during the 1933/34 winter, and the loss of a considerable number from removal for Apple maggot control.

Offsetting these losses, however, it is pointed out that trees planted during 1905 to 1912 are now in full bearing and that further large numbers, planted following the world war, will obtain their maximum production in the next few years.

Given favorable weather conditions, it is predicted that the total Apple crop during the next five years will be equal to or somewhat higher, than that of the past five years.

Apple Blossom Festival.

An Annual Celebration.

The 11th annual Apple Blossom Festival at Shenandoah (Va.) U.S.A., will be held early in May and, as usual, will attract many thousands of people to the two-days' celebrations. This festival is held every year when Apple orchards in the district are in full blossom, and is a form of advertising one of the main products of the district. Over £3,000 will be spent upon the festival, and processions consisting of floats and other picturesque displays will be seen.

STRICT MEASURES.

Both houses of the Indiana State Legislature (U.S.A.) have passed a Bill providing for the enforcement of an earlier regulation which requires that all fruit and vegetables shall be packed in closed containers which shall display labels setting out the contents, weight, grade and name of grower. The State Board of Health is made responsible for enforcing the regulation.

Supplementing the Act, fines are provided for in the case of infringements. £5 for first offence, £10 for second offence, and £20, with the alternative of up to 30 days' imprisonment, for a third conviction.

American fruit and vegetable trade journals are repeatedly reporting imprisonment sentences upon agents who fail to remit payment to growers supplying them with produce for sale, or firms who use the mails for illegal practices as well as those who operate without licenses. It would seem that the authorities protect growers in every way possible against exploitation by a few unscrupulous traders.

FRUIT BUYERS

LEMONS, ORANGES, GRAPEFRUIT, PEARS, PEACHES, APRICOTS, BERRIES, CHERRIES.

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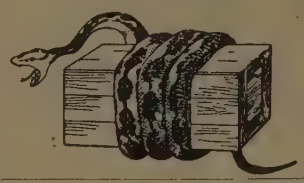
BROOKE'S LEMOS LTD.

69-79 WHITEMAN STREET, MELBOURNE SOUTH, S.C.5.

— Telephone, M 3141. —

PYTHON



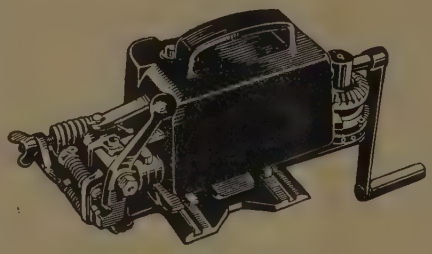
Wire Strapping Machines

.. and ..

Accessories

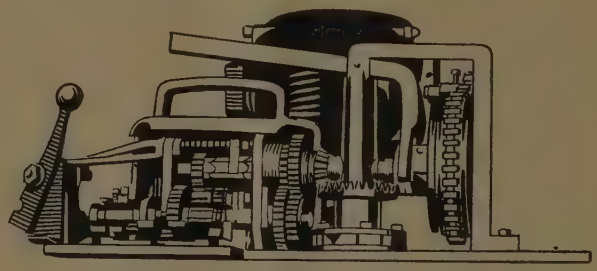
(All Australian)

Automatic Hand Operated Machine.

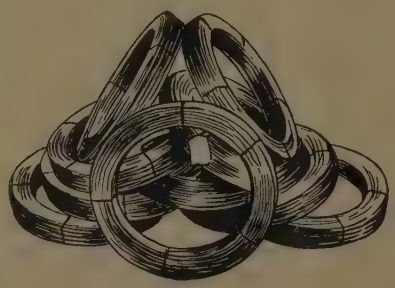


The only efficient Wire Strapper ever offered to the public.

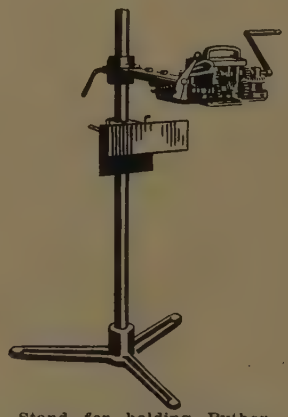
Electrically Driven Automatic Machine.



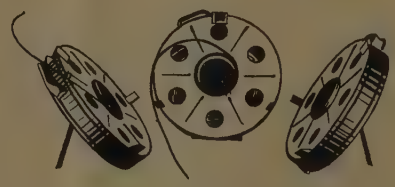
The only small Power Machine for wire strapping on the world's market. No loose strapping with the Python Machines—every case wired has the same amount of tension, irrespective of who operates the machine. When two wires are round a case both wires are carrying the same proportion of the weight.



Rewound coils of guaranteed measured feet ranging from 2,000 to 3,500 feet.
Sixteen-gauge high tensile wire at 3/6 per 1,000 ft.
Special wire for light packing at 3/3 per 1,000 ft.



Stand for holding Python Machines where packing is done on conveyors.



The most up-to-date container which eliminates tangled wires.

PYTHON WIRE STRAPPING PTY. LTD.

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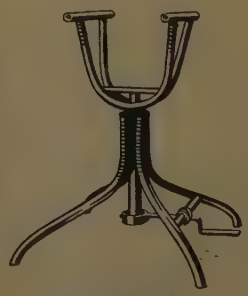


TURNTABLE.
Specially adapted for use in the packing of fruit, eggs, butter and all classes of light packing.

WESTERN AUSTRALIA

Organised Fruit Marketing

Success of Voluntary Organization in Western Australia

Crop Forecasts :: Production Statistics :: Market Research Yields Accurate Knowledge of Saleable Quantities.

Consumption Largely Increased by Means of Advertising Campaign.

THE SUCCESS of the Apple Sales Board, a voluntary organisation, in Western Australia, reflects the highest credit on all concerned.

Market prices in 1934 were stabilised, and clearances affected of 60 per cent. additional fruit over 1933 figures.

By having accurate figures available as to quantities and varieties in cool store, and knowing the weekly absorptive power of the markets, fruit was brought on to the market in a regulated manner.

When certain that more fruit had to be disposed of than the market could normally absorb an advertising campaign was planned, and conducted with admirable results.

One surprising fact was that the advertising largely stimulated the sale of cooking Apples.

The full story is told in the fifth annual report of the Apple Sales Board, a summary of which is here presented.

Programme and Objective.

This marketing scheme may in brief be defined as an organised, voluntary endeavour to serve the industry, but particularly the growers, by ensuring an informed regulation of the marketing of late Apples relative to Market conditions. The main objects are to ensure:—

(1) A reasonable balance of supply and demand.

Methods:—

(a) Regulation of supplies, advice to growers, co-operation of shippers, survey of special late export possibilities when necessary.

(b) Expansion of demand by the stabilisation of values and the improvement of quality—thus winning public confidence—and by publicity.

(2) Retention only of suitable proportions of the various varieties, etc.

Methods:—

Advice to growers, co-operation of shippers.

(3) Avoidance of trade losses and public consumption arising from the marketing of inferior lines.

Methods:—

(a) The elimination of storage deterioration by planned clearances, based on the suitability of varieties and by storage inspections.

(b) Advice to growers relative to suitability of varieties for storage and for the trend of public demand, as well as in regard to matters bearing upon the quality of the packed case.

(4) The stabilisation of values.

Method:—

The regulation of offerings to avoid price fluctuations, and thereby ensure continuity of demand and avoidance of trade nervousness and losses, as well as better average results for growers.

(5) Savings in costs.

Method:—

Truck loadings from country centres, the avoidance of wastage.

Above all this is a growers' scheme; their welfare is its major object: it depends for its success on their support.

It goes, however, much further than this, and seeks not only the benefit but also the goodwill of all distributors—agents, wholesalers, and retailers—and of the whole public.

* * *

The report deals in detail with the many phases of marketing,—effect of export quantities, packing, weather conditions, effect of stone fruits on the market, shed storage, selling policy, etc.

Those growers who followed the committee's advice in marketing quotas at stated periods personally benefited. The loyal support of the bulk of growers was very pleasing.

Successful Publicity Campaign.

The good will of the press, broadcasting stations, and Government departments was secured. Much voluntary assistance was gladly rendered: 2,000 recipe books were published; the campaign was conducted at low cost. The result was surprising.

> **It was found that the stimulation of consumption was reflected in the far greater demand for cooking than for eating Apples, despite the attempts made (in view of the situation of stocks) to direct public attention to the eating varieties.**

This brings Granny Smith into greater prominence (suitable for dessert or cooking) as against late-stored Yates.

A publicity campaign for 1935 is under consideration. Three factors must be considered: (1) Better quality Apples (inferior lines kill publicity attempts). (2) Effective finance—½d. per case recommended (last year's voluntary effort could not be repeated). (3) Effective support from growers,—i.e., the fulfilling of a demand when it is created.

(1) Facing the Facts.

As on previous occasions, the work of the Marketing Committee of the Apple Sales Board was concentrated on the rational marketing of Apples held in cool stores after June 30.

[To handle the whole crop would require elaborate organisation.]

Because of high prices for late Apples in 1933, and because of other factors, the committee had to sell more than five cases for every three cases sold in the previous season. The actual figures were —130,000 bushels for 1934 and 75,000 bushels in 1933. The increases (in bushels) being as follows:—Yates, 20,500; Granny Smith, 12,000; Rokewood, 3,500; other varieties, 11,500. (Amongst other varieties were Dunns, Democrat, Cleos, Romes, Nickajack and Delicious.)

Early in October circulars were sent to 1,200 growers, urging the thorough thinning of Yates, and stating, among other things: Isn't it better to sacrifice the surplus now instead of next May?

Bartlett Pears.

The marketing of this line ex-cool stores was again regulated by the marketing committee, and with a very substantial measure of success.

Quantities were somewhat lighter than in the previous season, and the cool store marketing period was deferred until a relatively buoyant tone had been established. Clearances were regulated in relation both to demand and storage experience, the latter aspect being most favorable. Growers generally have expressed themselves as exceptionally well satisfied with results. Transit in insulated cars from Bridgetown was again carried out with great success.

In respect of Bartletts, we repeat the reminder of vital points for storage given in our last report, viz.:—

> "Bartletts take case marks more easily than any other fruit, and cases must be lined. A paper lining usually serves as well as cardboards, and is less likely to hinder ventilation."
>
> "Ventilation is supremely essential, and suffocation is both deadly and infectious."

Another point is that, both for trade requirements and for successful storage, we advocate the use of the three-quarter flat bushel case for Bartletts, and recommend that such be made up with maximum spacing between slats to ensure effective ventilation.

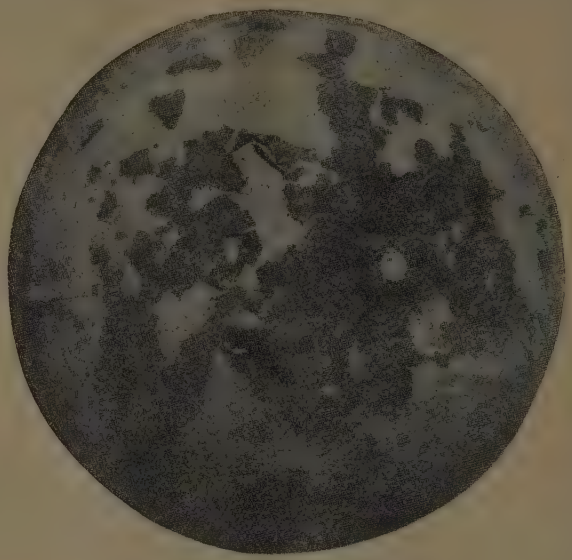
Bulk Loading.

This was effectively carried out; the quantities were greater than in other seasons, the net saving to growers being over £850.

Concluding Hints.

Crop Survey. A crop questionnaire will be sent about May. The information would be a guide not only for this year, but as the basis of comparison for future periods.

GUARD AGAINST SCALE!



NOTE.—The above is not a picture of the mountains of the Moon. it is an actual photograph of Scale on an Orange.

Scale and other insect pests rob you of profits. There is no surer way to guard your crop against these marauders than to *Spray the Gargoyle Way.*

Gargoyle WHITE Spraying Oil is the safest spray to use during the "leafy peroid." It is also the *surest,* because it is scientifically made from a special medicinal oil base that gives lasting protection.

Order your requirements now.

Gargoyle WHITE Spraying Oil

VACUUM OIL COMPANY PTY., LTD.

Yates. Growers urged to ship a proportion overseas, and to avoid retention of small grades for local market.

Quality. Marketing should be restricted to lines of good quality, and of suitable sizes. Growers are advised to cull heavily and to pack only fruit of which they are proud.

Shed Storage. As cool storage clearances must commence in July, all shed-stored fruit should be cleared by June 30.

Presentation. Too much emphasis cannot be laid on this aspect. Good fruit only should be packed,—the case to be filled with fruit graded regularly as regards quality, color and size. Only cases true to size should be used.

The fact that fruit is marketed apart from the board's recommendations is regretted. Where deficiencies in supplies occurred, however, other districts made good the required quantities.

Growers who sold direct, either ex-orchard or cool store, failed to secure the returns which they would have obtained had they placed their fruit under the control of the Apple Sales Board.

"In conclusion," states the report, "No one can view the position to-day without some sense of anxiety. **That very fact calls for a spirit of optimism.** The growers concerned have all the qualities needed to tackle a serious situation. Mutual help and determined effort for improvement can ensure that measure of foresight, organisation and progress which can not only bring the industry through a difficult period, but can establish it upon a much sounder footing. **Despite all discouraging factors, we believe in better times ahead.**

"Our cordial good wishes are offered to every grower; our service is available in practical demonstration of our interest, and in reciprocation of the goodwill shown to us by the industry."

The Apple Sales Board is a registered and responsible body constituted of—Mr. A. C. R. Loaring, chairman of directors, Producers' Markets Co-operative Ltd. (chairman); Mr. J. Thomson, general manager, The Westralian Farmers Ltd.; Mr. A. P. Sharpe, chairman of directors, Bridgetown Branch, The Westralian Farmers Ltd.; Mr. J. McNeil Martin, chairman of directors, Mt. Barker Fruitgrowers' Cool Storage Co-op. Society Ltd.; Mr. C. W. Harper, chairman of directors, The Westralian Farmers Ltd. (as chairman of the executive).

The executive to the board includes:—Mr. C. W. Harper (Westralian Farmers Ltd.), chairman; Mr. C. E. Bolt, manager, Albany Branch, The Westralian Farmers Ltd.; Mr. A. T. Booth, manager, Mt. Barker Fruitgrowers' Cool Storage Co-op. Society Ltd.; Mr. E. Fisher, manager, Bridgetown Branch The Westralian Farmers Ltd.; Mr. F. Simper, manager, Fruit Export Department, The Westralian Farmers Ltd. (representing Mr. J. Thomson); Mr. H. W. Soothill, general manager, Producers' Markets Co-op. Ltd.

The marketing committee is constituted as follows:—Metropolitan Members: Mr. T. Price, managing director, Illawarra Orchard Ltd., Karragullen (chairman); Mr. W. Berryman, representing Berryman & Langley Ltd., Perth; Mr. R. M. Carter, manager, Fruit Department, Paterson & Co. Ltd., Perth; Mr. J. Glendenning, representing W.A. Fruit and Produce Market, Perth; Mr. F. W. Lantzke, representing F. W. Lantzke, Perth; Mr. M. Scanlon, representing Scanlon & Simper Ltd., Fremantle; Mr. F. Simper, manager, Fruit Department, The Westralian Farmers Ltd.; Mr. H. W. Soothill (Producers' Markets). Country Members: Mr. C. E. Bolt (Albany), Mr. A. T. Booth (Mt. Barker), Mr. E. Fisher (Bridgetown).

Mr. H. W. Soothill is the hon. secretary of the board and of the executive and marketing committee. Mr. D. J. Sutcliffe is the hon. assistant secretary. Mr. F. A. Jaggard is the hon. accountant.

* * *

On reading the foregoing, the Easterner will have nothing but hearty congratulation to W.A. on the success of her plucky endeavours.

Of course, the quantities seem small compared with the crops in the Eastern States: but this is, after all, a relative matter, as the population of the huge Western State is only 440,000.

The interesting feature is that apparently a principle has been established in industry co-operation, bringing order out of chaos, and providing better returns for the grower.

The question which interests Australian growers generally, is to what extent could this principle be applied in, say, Sydney, Melbourne, Adelaide and Brisbane.

SPRAY HOSE

BURST PROOF
ALL RED

HAND-MADE
BY
HARDIE RUBBER CO. LTD.

"EVERY INCH AUSTRALIAN"

Obtainable at All Stores.

Orchards Wrecked in W.A.

Cyclone Does Extensive Damage.

PERTH, 3/4/35.

A cyclonic storm, which swept through the Bickley-Carmel Valley in the Kalamunda district yesterday, caused £10,000 worth of damage to orchards, houses and other property. The storm lasted for only 20 minutes, but fruit, which was ready for picking, was cut off by the hail, and permanent damage was done to the trees.

Parts of the orchards on hillsides were denuded of soil. Many homes and packing sheds were unroofed.

The Value of Case Labels.

Interesting Experience With "Sunkist."

ANY orchardist who has made his name by the quality of his fruit is careful that his cases are clearly marked with his name. Once secured, a good name for quality will sell the fruit quickly, often without inspection. It is the packer whose quality of fruit is doubtful who ships his cases with little or no brand of recognition.

The best known brand in California is undoubtedly "Sunkist," the registered mark of the California Fruit Growers' Exchange, the largest co-operative fruit growers' association in the world. If you buy Sunkist fruit in Chicago, New York, London, or even in Australia, you feel that at least you have bought quality. The word Sunkist is of great value in the actual selling of the fruit.

The California Citrograph's February issue reported that labels had been inadvertently left off one shipment of Sunkist Oranges sent to New York, and it caused the auctioneer quite a lot of argument and sales talk to sell the fruit. Buyers were sceptical about the fruit being Sunkist, and required the opening up of many cases to satisfy themselves that the fruit was wrapped in Sunkist wrappers, and each Orange stamped with the word Sunkist—just because the cases were despatched unlabelled.

The argument behind this report is that fruit from a proved orchardist or packing house is sold upon past reputation, and the mark or label is the emblem of quality for which buyers look. However good the fruit from an unknown grower, it is generally harder to clear than fruit from a grower or packing house with an established reputation for quality.

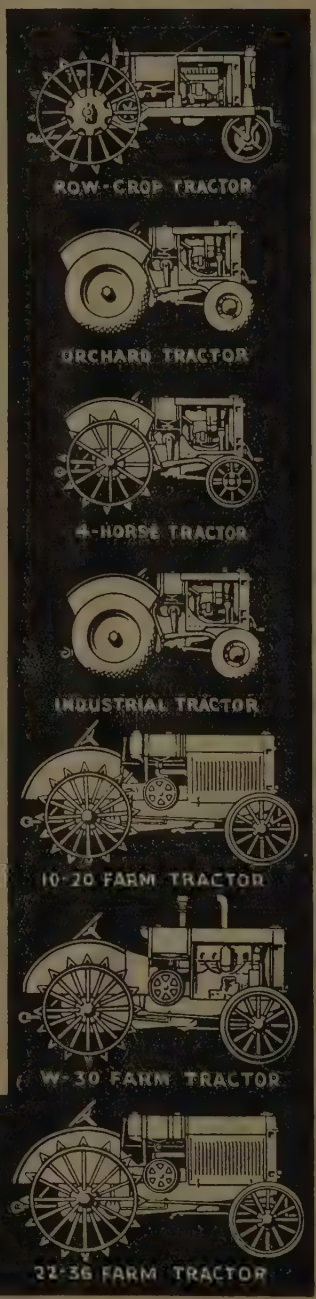
* * *

The foregoing is of interest to all growers and packing houses, particularly because of the efforts being made to establish a "National" Mark, a "Dominion" Mark, and the "Victoria" Mark.

A Complete Line of Farm Tractors

POWER for

ANY FARM
ANY SIZE
ANYWHERE



WHEN the McCormick-Deering tractor comes to the farm, life brightens like the break of day. Hours of tedious toil formerly sacrificed to the care of horses are saved. Constant, tireless, mechanical power replaces the slow, halting service of the plodding team.

Quality built, every tractor in the McCormick-Deering line is perfectly proportioned and abundantly powered for the tasks it is intended to perform.

Inspect this time-proved, accurately-graded line of modern, versatile, long-service triple-power tractors. Join the great and growing army of farmers who are riding on McCormick-Deering tractor power to better times.

There is a tractor in the McCormick-Deering line for every farmer whether he works with two, four, six, eight, ten or more horses—a tractor that will give him bigger results for less labour—the same steady, economical service year after year.

Prices from £212 up.

Farm for profit—farm with power—McCormick-Deering tractor power.

The McCormick-Deering line also includes a full range of tractors for industrial purposes.

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McCORMICK-DEERING

SOUTH AUSTRALIA

Mid-Murray Notes

Severely Difficult Drying Season — Dehydration Plants Working at High Pressure—New Packing Shed at Renmark—Tick Beans for Cover Crops.

(By Our Special Correspondent.)

THIS DRYING SEASON of 1935 will long be remembered as the worst one on record. In the early part of the season a few weeks of normal weather was experienced, and all the fruit (Currants and Sultanas) dried during that time went into the higher grades and was immediately shipped to the United Kingdom markets.

On March 20 the weather broke, and in spite of a favorable wireless forecast, the unexpected monsoonal conditions brought rain, accompanied by humid conditions. Many growers were caught with fruit uncovered on the hessians, and an immediate darkening took place.

In places where the curtains were not lifted to catch every breeze, a certain amount of mould developed.

These humid conditions gave way to cold southerly winds with intermittent rain and for over a month in the middle of the drying season it has been impossible to make any headway with the drying under the circumstances.

The **sultanas** still hanging on the vines stood up to a good deal of hard weathering, but as the weather showed no signs of fining up it was found necessary to take them to the distilleries.

Last year the Renmark Fruit Growers' Co-operative had a

large dehydrator built

with the view to meeting a possible bad drying season. This dehydrator has an output of about 25 to 30 tons per day, and was only used for a small amount of fruit. Owing to the present demand for dehydration, this plant has been working 24 hours per day for several weeks past, and on present appearances will be kept going for some time to come. All private dehydrators are working continuously and have stacks of fruit awaiting treatment.

The new packing shed

erected by the Renmark Fruit Growers' Co-operated is just completed, and is a very imposing building with some architectural beauty on the frontage. It has a floor space of 48,000 sq. ft. and the management expect to pack 4,600 tons of fruit this year. The building is entirely constructed of steel and concrete and the absence of wooden rafters and roofing timbers make it almost indestructable. As the new building is in close proximity to the railway station, a line will be constructed from the shed straight into the station yard, thus facilitating loading operations.

In a bad drying season such as we are now experiencing, a good deal of the fruit which would normally be dried, will now find its way into the wineries and distilleries, and on the present outlook a very small percentage of the Gordos will be dried. The Renmark Growers' Distillery are taking the bulk of the Gordos in the district and have made arrangements with growers to take in the vicinity of 4,000 tons of Doradillos, and expect to treat about 7,000 tons comprising 3,000 tons of wine varieties.

The tonnage of fruit to be treated by this distillery is estimated to be the largest on record.

The second special irrigation commenced on April 18, and the growers who missed planting their cover crops during the last "special" (about a month ago) will now plant this very necessary crop. A much larger percentage of **Tick Beans** is being sown than peas. The relative value of peas and beans is governed by circumstances, and it sometimes happens that beans planted late in the season cannot withstand the inevitable attack of black aphis, whereas peas are not affected. Peas keep on growing in the cold weather, but the bean makes only slow progress in the depth of winter.

If the **bean** is planted while the weather is still warm and makes good growth before the cold weather sets in, the black aphis does not check its growth, and in these circumstances beans unhesitatingly give better results than peas.

On the other hand **peas** mature early and can be ploughed under early, which will therefore be a big factor in obtaining a complete nitrification and a thorough breaking down into humus of the bulk of green matter, before the spring growth of roots will require it.

However, whether peas or beans are to be planted, is a matter of individual decision, but by far the most pleasing factor to those who have for years strongly advocated this practice is the fact that growers are no longer asking the question: "Does it pay to plant cover crops," but in place of this comes the question: "Which shall I plant."

Another contributing factor towards extensive planting of cover crops is the fact that the irrigation authorities in all River settlements are now making a special irrigation available at a reasonably low cost, whereas in the bad old days, those who planted cover crops had to depend on winter rains, which seldom came, and the expense of planting a cover crop became very disheartening.

In the February issue in my notes relating to the **annual meeting** of the **Citrus Association**, a statement attributed to Mr. C. Mueller was unfortunately confused with passing remarks of Mr. Wicks. In his statement a comparison was made with New Zealand and Australian marketing conditions, and it was pointed out that in his observations, with perhaps the exception of Christchurch and Wellington, 90 per cent. of fruit and vegetables would be drawn from long distances within New Zealand and interchange within cities, whereas the Adelaide supplies are drawn within a radius of a few miles, and the interpretation of this remark was unfortunately taken to be imported fruits. Mr. Wicks also stressed how discriminating New Zealanders are in their buying, and demand high quality of varying fruits, much of which is drawn from Cook Island, which is of a sub-tropical nature, fruits of which are not obtainable in Australia. Mr. Wicks states that it is quite wrong to depreciate the vitamen content of either fruit or vegetables grown in N.Z., and that furthermore, Apples grown in that country are highly valued in the world's market.

It could, however, be said that Oranges constitute a necessity of diet, and as this fruit is a valuable vitamen product, supplies drawn from Australia have always found a ready market in that country.—"Nemo."

South Australian Fruit Marketing Association.

THE MONTHLY MEETING of the executive of the South Australian F.M.A. was held at Adelaide on March 29. There were present Messrs. H. J. Bishop (president), A. R. Willsmore, S. M. James, J. S. Hammat, H. N. Wicks, A. O. Peterson, D. Norsworthy, R. A. Cramond, M. G. Basey, M. Vickers, P. R. B. Searcy, T. Playford, A. G. Strickland, J. B. Randell, D. W. Hannaford, and the secretary, E. W. Mills.

Mr. Cramond drew attention to the fact that in the minutes under the subheading, Regulations Under Fruit and Vegetables Act, the last three lines read:

> "It was resolved that the association approved of the objections outlined by Mr. Playford, and left the matter in his hands to watch the interests of the fruitgrowers."

The PRICE of

Sulphate of Ammonia

now **REDUCED by £1 per Ton**

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£11-8-6 Free on Rail Capital Cities, less 2½% Discount for Cash

Sulphate of Ammonia provides the cheapest NITROGEN procurable, and is recognised throughout the world as the most favoured form of that plant food essential.

Now Is Your Opportunity

To Transform those yellowish leaves — that poor growth of shoots and laterals.

By Making

An Application of Sulphate of Ammonia this Coming Spring

For Quality Fruit—

Apply Sulphate of Ammonia in balance with Super and Potash.

Ask for the 2:2:1 or 4:4:1

H3/35

Mr. Cramond moved, and Mr. Playford seconded, that these words be deleted, and the following substituted:—

"The matter was left in Mr. Playford's hands to watch the interests of the fruitgrowers."

Finance. Financial statement showing balance in bank £711/17/4 was submitted by the secretary and received.

Correspondence. Letter from Australian Apple and Pear Export Council, enclosing copy of letter from Department of Commerce giving figures in regard to American stocks of Apples to December 1, 1934.

Letter from Royal Agricultural Society, suggesting that the association should offer a trophy for junior Apple packing, open to competitors under the age of 18 years, and advising that the committee was not prepared to include the class for Pear packing, as it was felt that Pears could not be kept in reasonable condition until the time of the competition.

The secretary explained that the R.A.S. required an immediate reply, and, after consulting with the President, the suggestion had been agreed to for this season. The action of the president and secretary was endorsed, but members considered that a Pear packing competition was desirable, and they thought that the necessary fruit could be obtained.

Mr. Hyland's Visit. The president reported on Mr. Hyland's meeting, held in Australia Hall on March 20. It was agreed to write to Mr. Hyland, and express the thanks of the committee, and invite Mr. Hyland to write the association at any time for information in regard to the industry, and the association would be pleased to receive reports and information from Mr. Hyland.

"Themistocles" Pears. The chairman reported that the "Themistocles" had arrived, and that, with a few exceptions, Pears had been landed in good order and condition, but the price had not been very satisfactory.

Freight Committee. The president reported that the full quota of 300,000 cases of Apples would not be shipped, as the crop had been affected by hail, codlin moth, and the prolonged dry spell, but he considered that the application was fully justified when it was made.

The Pear shipments also would fall somewhat short of the original estimate and application.

An informal discussion took place on the subject of the distribution of Federal Grant for relief of fruitgrowers.

Research Sub-Committee. Mr. Wicks reported the following matters had been dealt with by the Research Sub-Committee. Reports re spray injury were discussed, and it was intended to investigate this matter.

Manurial Tests. A report was to be written up by Mr. Wicks giving the re-

sults of the four years' tests, and submitted to Mr. Strickland. In all probability the tests would not be continued under the existing conditions.

Mr. J. B. Randell submitted a specimen of Jonathan Sport Apple.

Mr. Vickers suggested that Mr. Playford be asked to assist in getting some of the hail-marked fruit absorbed through the Unemployed Relief Council.

Sale of Inferior Fruit. Suggestions to overcome this had been considered, and it was hoped to evolve a system of grading and selling by grade. Consideration was also to be given to the advisability of selling Apples and Pears by number instead of by weight.

RESEARCH HAS BROUGHT RESULTS.

Research that has been going forward for several years by the U.S. Department of Agriculture has brought results of economic importance to many industries, as well as consumers. For example, to protect dried fruit against insects, cheese cloth shields have been placed over bulk fruit while it is drying in storage, thus enabling growers to deliver to the processors a high-grade product which commands a better price than fruit left exposed to insects. Further protection, it has also shown, can be provided by the use of simple fumigating equipment set up on the farm.

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Fruit Trees

Fruit Trees

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Somerville — Victoria Australia.
Orchards & Nurseries 208 Acres.
Private Cool Stores, 17,500 Case Capacity.
Established 1866.

Aspects of Fruit Marketing

Achievements in New Zealand

Dominion Mark Scheme is Definitely Increasing Fruit Consumption

INTERESTING INFORMATION regarding the fruit industry in New Zealand was recently furnished to the "Fruit World" by Mr. R. D. McCully, who, until recently, was editor of the "N.Z. Orchardist," and in charge of the Dominion Mark Fruit publicity campaign. Summed up, Mr. McCully states that **the Dominion Mark advertising scheme has definitely increased the sale of fruit in the Dominion. It is frankly realised, however, that much yet remains to be done.**

The interview with Mr. McCully can be summarised as follows:

Matters affecting the industry generally are discussed in New Zealand at annual Dominion conferences, and for some years the question of **local marketing** has been the subject of several remits at these conferences. Acting on special recommendations from the industry, the N.Z. Fruitgrowers' Federation inaugurated the **Dominion Mark scheme** about four years ago, and in view of what is now being undertaken under the Victoria Mark proposals, it is of interest to know something of the results being achieved across the Tasman.

Packing and grading regulations were first prepared, being generally a modification of the export schedule; a suitable label was struck, and added to the cost was 1d. per label, for the purpose of establishing publicity funds.

The retail trade

was thoroughly canvassed personally, and immediately Dominion Mark fruit appeared on the markets, newspaper advertising was released, and retailers willingly paid a premium on the standardised fruit.

As experience was gained, more money was spent on posters, until today every shop receives periodically a free supply of posters, depicting several varieties, together with price tickets, and leaflets containing suitable recipes. In this latter matter, the "Fruit World" was interested recently to peruse a citrus leaflet, wherein was included a topical short article on the value of citrus fruits in the diet, written by an eminent New Zealand Health Officer. Such support from the medical profession is something of which New Zealand growers may well be proud.

Perhaps the most interesting feature in the publicity work has been the

distribution to every school

of specimens of the posters, and this work has included the preparation of special lessons on each variety; this literature is approved by the Director of Education, and questions by the school inspectors touching on Apple varieties, etc., are now an accepted phase in school examinations. In New Zealand there are over 250 permanent school dental clinics, and, as in the schools, so also in these institutions, and in the Plunket rooms, the fruitgrowers' posters are shown.

The "Fruit World" has been privileged to examine New Zealand's 1935 display material; in every respect it is splendid, there being eleven distinct poster designs, each printed in six colors by offset litho. process.

These foregoing points are salient features in the Dominion Mark scheme. Naturally, there are big difficulties still to be overcome, **including the encouragement of greater support by individual growers.** No doubt, what transpires under the Victoria Mark will be a repetition of New Zealand's experience, but, with reasonable support from all sections, together with sound administration and a vigorous publicity programme, a certain step should be taken in the great task of elevating the fruit industry to the position which it should rightfully enjoy.

Improving the Local Markets.

From observation, it is apparent that local marketing activities are capable of improvement.

Essentially there must be elimination of lower grades, the adoption of universal standards (as in the merchandising of other foodstuffs and commodities), and substantial publicity to foster increased consumption.

Summed up, the local marketing problem is a definite challenge, and we can meet it only by progressive co-ordination between all sections.

Growers should get into touch with Empire Produce Exports.

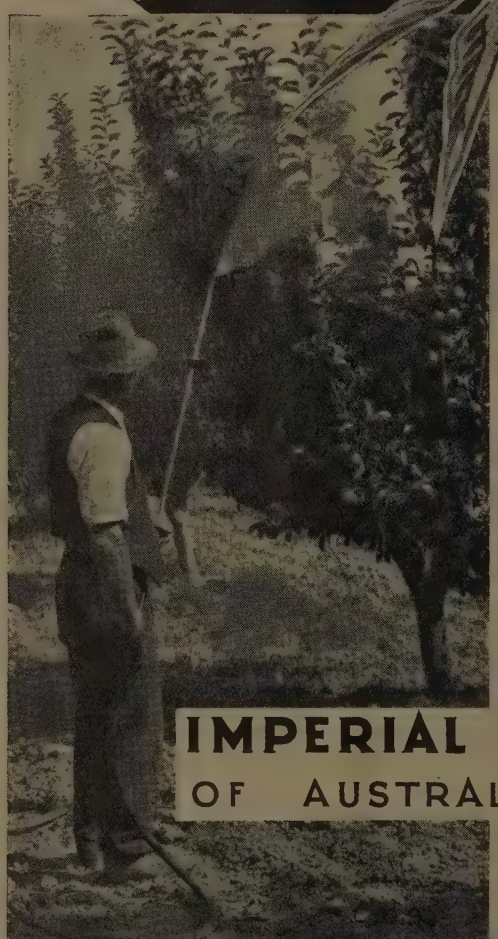
PITTS & LEHMAN

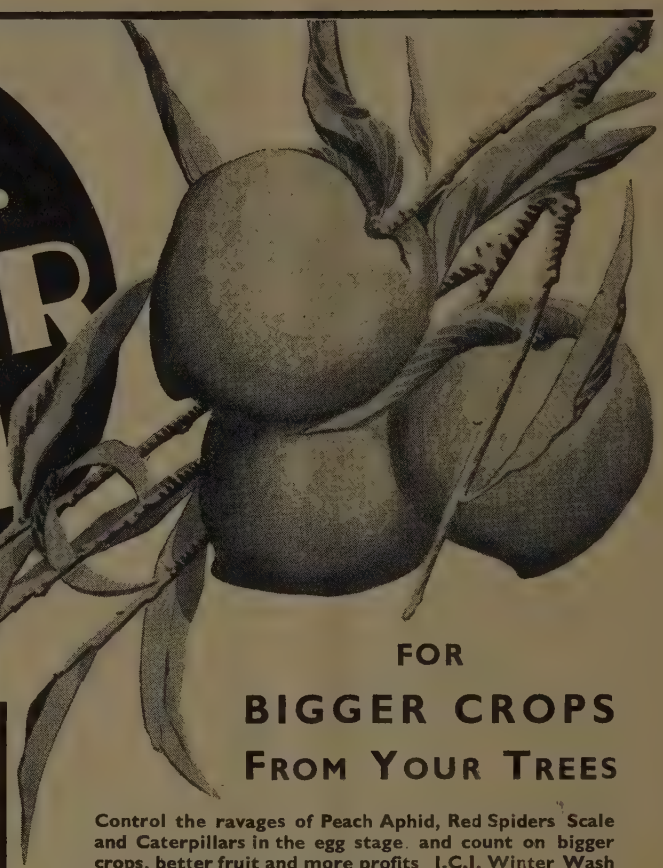
129 PITT STREET, SYDNEY

And take advantage of their wide connection with importing firms in England, Canada and Europe.

Representatives of—Ridley & Houlding Ltd., London; Mutual Brokers, Montreal; R. & W. Davidson Ltd., London and Glasgow; Roberts Brining & Co. Ltd., London and Glasgow; Thos. Allan & Co. Ltd., Glasgow, and W. Gosley, Hull.

I.C.I. WINTER WASH





FOR BIGGER CROPS FROM YOUR TREES

Control the ravages of Peach Aphid, Red Spiders Scale and Caterpillars in the egg stage and count on bigger crops, better fruit and more profits I.C.I. Winter Wash can be relied upon to protect your trees from hungry insects—recent tests in Victoria have proved it 100% effective. I.C.I. Winter Wash is a dormant period, tar-distillate spray, converted into a creamy emulsion that emulsifies in the hardest water.

I.C.I Winter Wash is not an added expense—it saves its cost many times over in more and better fruit Order now, from your local dealer.

Report of Ardmona test published in Journal of Agriculture Victoria, Vol. 31, Part 6, June, 1933.

Write for Illustrated Folder.

AGENTS:

RAMSAY & TREGANOWAN, 469 Latrobe St., Melbourne.
MACDERMOTT & SHEEDY, City Fruit Markets, Sydney.
A.C.F. & SHIRLEYS FERTILIZERS LTD., Brisbane, Queensland.
Gardners' Supply Stores Co-operative Society Pty. Ltd., New Market, Grenfell, Adelaide
C. E. CAMPBELL, Endean's Bldgs., Queen St., Auckland, N.Z.

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CANNED FRUITS

Australian Canned Fruit.

Problem of Price Cutting in England by Chain Stores—Position improved by Stocks being Sold through Increased number of Wholesalers.

AUSTRALIAN CANNED FRUIT sales in England are dealt with in a recent report to hand from the South Australian Agent-General in London (Mr. G. F. McCann) per favor of Mr. G. A. W. Pope, general manager South Australian Government Produce Dept., as follows:—

Following on my earlier advices regarding the disposal of Australian Canned Fruit Standard Cans through certain chain stores, the following statement taken from "Canada's Weekly" will be of interest:—

"Retail grocers in various parts of Great Britain are becoming alarmed at the price-cutting of canned fruits now prevalent in certain quarters. **It appears that particular 'nothing-over-sixpence' stores are selling certain packs of Australian fruit at prices obviously below those which should constitute a fair charge.** We cannot learn that any brands of Canadian canned fruits are being subjected to the same unfair competition."

The "Grocer" also publishes the following:—

"From several parts of the country comes news of price-cutting in the retail prices of canned fruits. The gravamen of the complaint is that the 'nothing-over-sixpence' stores are selling certain packs of Australian fruits at prices appreciably below those which in fairness ought to be charged. **In certain districts in the West of England the competition has become so acute that ordinary retail grocers are being invited to sign a petition to the Australian Canned Fruits Board in London to stop supplies to the price-cutting firms, or as an alternative to fix retail prices.** Frankly, the Board is not in a position to act in either direction, sympathetic though it may be to those who desire that price-cutting should be stopped. The facts are that in the first instance the fruits are supplied only to duly accredited dealers, who, so long as they conform to the ordinary conditions of the trade, are beyond the control of the Board. That is to say, the authorities cannot impose conditions as to whom the fruits shall be sold or as to the prices at which they shall be sold. **This position is in a large measure dictated by the circumstance that in Great Britain Australian produce has to compete with foreign packs, and so long as the latter are uncontrolled as to price it is hardly to be expected that Australian goods can be brought under control. The competition is too keen.**

The position of the Marketing Board is, indeed, summed up in an official letter which a subscriber to the "Grocer" has sent for information. We take the following extracts:—

"Messrs. Woolworths Ltd., do not buy Australian canned fruits except at the ordinary commercial rates; they pay full price for them, and, as you will understand, we are unfortunately unable to dictate to them the price at which they must sell the goods. I am sorry that this unfortunate position has arisen, but we are powerless to do anything in the matter. I do not know where Messrs. Woolworth's obtain the fruit. As you know, they sell not only Australian, but also canned goods from every other country—sometimes a lot, sometimes a little, sometimes not at all—but they sell them, and it is always possible, I suppose, to get people to buy them."

Considerable satisfaction will, however, be derived from the letter, printed in our correspondence columns to-day, in which Mr. H. C. Smart, acting director of Australian Trade Publicity, states that this season's supplies of **Australian canned fruits will be distributed to a much larger number of wholesale houses than in any year since the formation of the Australian Canned Fruits Export Board in 1926.** This statement should do something to allay fears that the trade in these fruits will be confined within narrow limits."

Further to earlier advices, the South Australian Agent-General in London (Mr. McCann) writes under date March 21:—

A recent meeting of the Metropolitan Grocers' Association decided, in view of the action of a well-known chain store in selling 2½'s cans of Australian fruit at 6d., that the Australian authorities should be asked to receive a deputation to urge that as steps had been taken to fix a minimum wholesale price, action should be taken to maintain the minimum retail price.

Leeton Cannery.

To be Operated by Growers.

Commencing on July 1 next, the Leeton Cannery will become a co-operative venture conducted by growers of canning fruit in the Griffith, Yenda and Leeton districts of N.S.W. Originally built by the N.S.W. Government and later extended by the addition of a cool store, it was arranged that after three years' operation the cannery would be taken over by the growers at less than cost price. The growers, feeling that already the cannery has proved itself capable of profit, decided to acquire it before the three years term is up.

Costing the N.S.W. Government around £200,000, the growers have agreed to a purchase price of about £50,000, repayable over a period of 20 years at 3 per cent. interest, according to "Area News" of 9/3/35. This would look like a good bargain for the growers if they can run the cannery at less loss than that suffered by Government ownership.

LEETON CANNERY SOLD TO CO-OPERATIVE COMPANY.

The Bill authorising the sale of the Leeton Cannery to a co-operative company passed through all stages in the N.S.W. Legislative Assembly. It was piloted through the House by the Minister for Agriculture (Mr. Main).

One member stated that capital cost of the cannery was £270,000. Mr. Main said that the losses incurred since its establishment, and interest, etc., were responsible for another £500,000. It was the duty of settlers to see that the operations of the cannery were profitable, not only in their own interests, but also in the interests of the general taxpayer, who footed the bill. The Crown did not hope to recover in any way the losses of past years.

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GERRARD
WIRE TYING MACHINES
STAND THE TEST FOR
RELIABILITY
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GERRARD WIRE TYING MACHINES CO. Pty. Ltd.
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APPLE AND CITRUS PACKING CHARTS ARE AVAILABLE FREE ON APPLICATION. GERRARD SERVICE

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QUERIES QUESTIONS DOUBTS

As to the Best Outlet for Your Fruit
can be dispelled by consigning it to

T. J. POUPART LTD.

COVENT GARDEN
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Account Sales rendered are the best test of Salesmanship. On that test we have emerged from obscurity in 1895 to world-wide repute in 1935

Consignments of Oranges Solicited

Separate Department for Dried and Canned Produce and Pulp.

— AT —

SPITALFIELDS MARKET
London, E.1.

Tasmanian Growers ship through Eric Burgess Pty. Ltd., 88 Collins Street, Hobart.
Victorian Growers ship through Fred J. Andrew, 153 William Street, Melbourne.

CANNED FRUIT CONTROL BOARD SENDS REPRESENTATIVE TO ENGLAND.

To investigate marketing problems affecting Australian canned fruits, the Canned Fruit Control Board has sent Mr. G. J. Evatt, one of the N.S.W. Irrigation Commissioners to London. This is not the first time that Mr. Evatt has gone to England in the interests of the canned fruit industry. Some of his previous recommendations have been followed and have conferred benefits in the better marketing of our canned fruits.

FRUIT CANNING IN JAPAN.

Exporting Huge Quantities.

The canning of fruit is making remarkable progress in Japan. The principal fruits canned are Pineapples, Peaches, Cherries, Oranges and Strawberries. Of these, Orange canning has made a sudden development during the past few years. In 1929 the production of canned Oranges (and Mandarins) was 30,000 cases, but this quantity increased to 532,000 cases in 1934.

Owing to the extremely low cost of production and processing, as compared with that of other fruit-growing countries, Japanese exports are reaching huge proportions, and it is expected that this business will further increase in the near future.

MANY CANNED VARIETIES.

Every year new lines of canned foods are appearing on the market, and this method of processing food is extending into hitherto unknown varieties. All are familiar with pickled Onions and other vegetables, but recently, in New York, concentrated Onions, packed in cans with lift tops, made their appearance. Minnesota is credited with recently introducing canned Onion soup in the true French style, that is, cooked with crisp French fried Onions, some cheese and supplemented with good beef stock. It only needs heating before serving.

During the war, several forms of canned dinners were available, but few were relished after the novelty had become a forced habit, until the soldiers craved for some really fresh home-cooked food.

In the realm of fruit, new varieties are appearing with consistent frequency. The canning of Grapefruit has become quite an industry in Florida (U.S.A.) for the American dearly loves his morning Grapefruit, and when it is not available in the fresh form he gladly accepts the canned substitute.

Pineapples are not only canned in Australia, Hawaii cans more Pineapple than we do. The "Western Canner and Packer" (U.S.A.), in discussing the Australian Pineapple trade, says that the Australian fruit, when canned, is now superior to anything previously produced in the way of canned fruits by Australian canneries. Malaya has 64,577 acres under cultivation for Pineapples, almost all of which are exported. In 1933 a sharp decline in her exports occurred, prices abroad dropped and Australian Pineapple canneries may thus be considered fortunate in being able to have the bulk of their output consumed in this country. Malayan growers, retaliating for the lowering of prices received from the canneries for their fresh fruit, destroyed about 35 per cent. of their crops in order to force a rise in prices received.

Cherries are processed in several ways in Australia, but imported forms also come from France and Great Britain, of which approximately 450 tons a year are consumed in Australia, besides some 800 tons of Australian-grown Cherries. The production of preserved Cherries in Australia is estimated at a value of £90,000.

CANNED FRUIT EXPORTS.

A statement has been received from the Canned Fruits Control Board setting out particulars of exports of canned fruits from Australia to various destinations from the commencement of the season (January 1) to March 31, 1935. The following figures are given (in dozen tins):—Total export 495,618 (30-oz.), 4,392 (21-oz.), 170,546 (16-oz.). This was made up of Apricots 68,629 (30-oz.), 60 (21-oz.) and 23,734 (16-oz.); Peaches, 224,152 (30-oz.), 750 (21-oz.), 88,508 (16-oz.); Pears, 176,988 (30-oz.), 55,436 (16-oz.); Pineapples, 25,849 (30-oz.), 3,582 (21-oz.), 2,868 (16-oz.). The heaviest export was to U.K., being 468,449 (30-oz.), 1,280 (21-oz.) and 161,072 (16-oz.). Additional quantities (in dozen tins)—11-oz., 30 Apricots to U.K.; 120 Peaches to U.K.; 150 Pears to U.K., 104-oz., 678 Peaches to Canada; 104-oz., 470 Pineapples to U.K., 7 to N.Z., 1,679 to Canada.

ALL FOODS CANNED.

That the future will see the preparation of most foods at factories by experts, and a system of distribution in cans, is the prediction made by Mrs. Phyllis Lovell, an English canned cookery expert and authoress.

"I can never understand why cooking should still be looked upon as an essential virtue in woman in this age of specialisation," she said.

"I believe the day is not far distant when the bulk of a country's food supply will be prepared and cooked by highly-trained experts at factories and will be distributed in cans, thus leaving woman more leisure to develop all her faculties. With such a market, the variety that would be produced in types of canned food would be tremendous, differences even being introduced into the flavor of the same produce. The food so produced would be protected from contamination and dirt, and would in fact be fresher than most of the 'fresh' food sold over the counter, which may have been weeks or months in storage or transit before it is consumed."—("Food," Australia.)

CANNED DRIED PRUNES.

Addition of Lemon Juice to Syrup.

In a recent report to the American Chemical Society, Messrs. E. H. Kohman and N. H. Sanborn, of the National Canners' Association, Washington, D.C., stated that Prunes may now be canned "ready to serve." Formerly this was impossible, owing to the loss to manufacturers by can corrosion, but it has now been ascertained that spoilage is prevented and the flavor improved by the addition of Lemon juice to the syrup.

The addition of Lemon juice to Prune pulp canned for infant feeding has now been practised commercially in America for nearly two years with entire satisfaction.

HEINZ TO OPEN IN MELBOURNE.

It is now announced that the famous Heinz Pty. Ltd., of America, are to establish a factory in Melbourne for the processing of fruit and vegetables similar to their processing in U.S.A. This company is world famed for the variety of commodities which they market. Their brand is a Cucumber inscribed 57, and represents that they process 57 varieties though this number is doubtless less than the number of foods, soups, pickles, fruits and similar foods which they now treat.

Four and a half acres of property have been secured in Burnley for the factory, and work on construction will begin immediately. The company is registered as H. J. Heinz Company Pty. Ltd. in Australia, and the capital is quoted at £25,000 in £1 shares. In addition to Australian consumption, they will supply their export market to India, Malay States and Java from the Australian factory.

In addition to requiring large quantities of fruit and vegetables from local growers, the new company will employ large numbers of men and girls whom they will train in the processing of these materials.

PATENTS
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Cold Storage In Australasia

Cool Storage of Pears

Some Seasonable Hints.

THE PEAR, in common with most other fruits, varies considerably in its adaptability to cool storage conditions, its behaviour in this regard being influenced by variety and to a lesser extent, by the district in which it is grown. It is impossible, therefore, to generalise to any extent regarding the handling of this fruit for cool storage, writes the departmental orchard inspector located in the Batlow district. A point that should always be kept in mind, however, is that **the ripening process is not entirely suspended in cool store, but merely slowed down**, and consequently if the fruit is to remain in the store for any length of time and still be in good marketable condition on its removal, it stands to reason that it must not be by any means forward in condition at picking time. It is on this point that some knowledge of the characteristics of the various varieties is absolutely essential to success.

Two Common Errors.

Two faults are often met with in cool storing; one being a tendency to pick a little too early and the other a tendency to hold the fruit a little too long. In the first case, when picked too early the fruit does not develop its proper flavor and often shrivels badly, and when held too long, loss sometimes occurs through over-ripening and fungal rot, and the flavor likewise is also adversely affected.

It is generally conceded that Pears hold better at slightly lower temperatures than Apples, 30 to 32 deg. Fahr. being the best for Pears and 33 to 34 deg. for Apples in most cases.

Bruised Fruit Rots in Store.

Care in handling during all operations prior to cool storing is essential. Bruised fruit or fruit damaged by stalk punctures, etc., will often rot in cool store just as much as in ordinary storage. As a general rule, Pears are better left unpacked and unwrapped, being placed in store loose in the picking cases or boxes, and as soon as possible after picking. This latter point is worth remembering, as it has been proved that no good purpose is served by holding Pears in ordinary store prior to cool storing; in fact, to do so considerably lessens the cool storage life of the fruit.

Grade Some Pears Before Storing.

With very tender-skinned varieties, such as Winter Cole and Josephine, it is a good plan, if at all possible, to grade and size them prior to storage, as they appear to be very subject to skin blemishes if put over the sizing machine immediately after coming out of the cool store. Sometimes a fruitful source of trouble in the store is to stack fruit in a solid block without provision being made for the free circulation of air. It is an advantage to separate each row of cases from its neighbor by ½ to 1 inch to allow the air to circulate freely to all parts of the chamber.

Notes on Varieties.

The following notes on the storage life and other characteristics of the main commercial varieteis of Pears grown in this State should prove helpful:—

Packham's Triumph. — This is one of the best varieties and will cool store excellently for a period of about three to four months. Unlike most varieties it should not be picked until there is a slight tinge of yellow in the skin, as experiments extending over a five-year period at Batlow have proved that this variety is likely to shrivel around the stalk end if picked much before this time.

Williams.—This is not a long keeper, and as a rule four to six weeks is its limit in cool store. It should be picked whilst still hard and green—just as the ground color commences to change. If allowed to become even slightly yellow prior to picking it will lose its flavor and become dry and mealy, and in all probability break down after being taken from the store.

In Preparing Your Bordeaux Sprays Use . . .

E S A BLUESTONE

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PORT KEMBLA, NEW SOUTH WALES

The Right Material for Plant Disease Prevention and Control

GUARANTEED 99% PURITY

GRADES—Mixed Crystals, Fines, Granulated (Snow), Packed in Suitable Containers for Growers' Requirements.

Agents for All States : **ELDER SMITH & COMPANY LIMITED, All Capital Cities.**

BOOKLET—*"Better Yields by Spraying with E S A Bluestone" obtainable on application to Elder Smith & Company Ltd.*

Winter Cole.—The Cole is a good storer for a period of up to about three months. It should be picked just as the ground color commences to change and should be handled very carefully, as it has an extremely tender skin and is very easily marked. It is very subject to shrivelling if picked too green.

Josephine.—This is a variety which is usually regarded as a very good keeper and in some districts, especially in Victoria, will keep in excellent condition for seven to eight months. In some of our New South Wales districts, however, especially in the cooler parts, whilst it is an excellent quality Pear it will not keep longer than three to four months. It should be picked whilst still hard and green and before there is any very decided tinge of yellow in the skin. It is very subject to skin marking if handled carelessly.

Beurre Bosc.—A good cool store Pear for periods up to four months. It should be picked just as the ground color commences to change. Careful handling is necessary in spite of the apparently tough and russetted skin.

Beurre D'Anjou. — This variety cool stores well for periods up to about four months. It should be picked just as the ground color commences to change and handled very carefully, as it is a fairly clear-skinned Pear and will mark easily. —(N.S.W. Agricultural Notes.)

THE PHILIPPINE ISLANDS.

Reduction of Storage Temperature Offers Another Avenue for Our Export Fruit.

A bulletin recently issued by the Department of Commerce, Commonwealth of Australia, notifies that following action taken by the Department to have the embargo, which was operating upon fresh fruit from Victoria and Tasmania into the Philippine Islands, removed, fruit may now be carried at a temperature between 35 and 40 degrees F., instead of the earlier experimental temperaturs of 20 and 30 dgrees F.

This decision removes the last remaining difficulty in the way of fruit shipments to the Islands, in that fruit can be carried in all ships trading with the Far East.

The fact that Australian fresh fruit can now be landed on the Philippines' market at a period when Californian and Japanese exports are low, should guarantee a regular market, though comparatively small, and provide another avenue for our export fruit. The Department is to be congratulated upon its efforts in regard to the reconsideration of temperature requirements, as are also those exporters who showed enterprise in first exploiting a potential market for Australian fruits.

Orchardists and Cool Stores Association.

Annual Conference will be Held at Portland on May 21.

Agenda Includes "Apple Export Varieties" :: Sales Tax Exemptions :: Effect on Storage of Fruit Washing :: Protection of Growers Re Export Consignments :: The Running of Fruit Cool Stores.

THE ANNUAL CONFERENCE of the Orchardists and Fruit Cool Stores' Association of Victoria will be held at Portland on May 21.

Among the items listed for discussion are the following:—

Apple varieties for export.

The use of cool stores to the exporter.

The exemption from sales tax of all supplies and replacements for fruit cool stores.

The washing of fruit in its relation to storage.

Protection of growers in respect to the proceeds from export consignments.

Consideration of annual graph of comparative working costs.

Consideration of tables showing details of electrical and crude oil engine operations.

Mr. Geoffrey W. Brown, president of the Victorian Fruit Marketing Association, will give an address on the subject of "Fruit Marketing and Empire Trade."

The forthcoming conference will be the seventeenth since the inception of the association in 1918. During this period the association has grown steadily, and now has 28 members. The membership includes the great majority of the orchardists' co-operative cool stores in this State, besides a number of private cool stores, and two inter-state stores: thus the association represents a large number of fruitgrowers.

During the course of the past year, consideration and attention have been given to various matters affecting fruitgrowers and cool stores in particular. Some of these are:—"Interest Rates on Loans to Fruit Cool Stores"—"Evasion by Factories of Fixed Prices for Jam and Canning Fruits"—"Exemption from Sales Tax and Duty of Plant and Equipment for Cool Stores"—"The Collection of Statistics Showing Quantities of Fruit Held in Cool Storage in Victoria at Various Periods Throughout the Year"—"Duty and Embargo on Apples Imported"—"Reduced Prices for Different Necessities of Affiliated Stores"—"Protection of Growers in Respect to Proceeds from Export Consignments," etc.

Office-bearers, who retire at the annual conference, are: — President, Mr. J. J. Tully, Doncaster; immediate past president, Mr. E. H. Hatfield, Tynong; vice-presidents, Mr. F. Moore, Blackburn, Mr. L. G. Cole, Tyabb; representative to Chamber of Agriculture, Mr. F. Petty, Doncaster; representative to Employers' Federation, Mr. F. Moore, Blackburn; auditor, Mr. J. W. Barrett, Ringwood; secretary and treasurer, H. J. Noonan, Donvale.

FRUIT TRANSPORT *by* **SEA**

To Interstate Markets

IN REFRIGERATOR or COOL, WELL VENTILATED 'TWEEN DECK specially adapted for Fruit Carriage and fitted with powerful Electric Fans.

FAST MODERN PASSENGER VESSELS
Sail Twice Weekly to Sydney (Saturdays and Wednesdays).
Sail Weekly to Brisbane, Townsville, Cairns (Saturdays).

CARGO VESSELS sail Weekly for Sydney and Brisbane (Tuesdays).

SPECIAL REDUCED RATES OF FREIGHT.

FURTHER INFORMATION, SAILING DATES, ETC., WILL BE GLADLY SUPPLIED ON APPLICATION TO THE UNDERMENTIONED COMPANIES AT MELBOURNE:—

HOWARD SMITH LTD.
ADELAIDE STEAMSHIP CO. LTD.
MELBOURNE STEAMSHIP CO. LTD.
A.U.S.N. CO. LTD.
McILWRAITH McEACHARN LTD.
HUDDART PARKER LTD.

OILED PAPER WRAPPERS.

Tests which have been conducted in New South Wales this season confirm the experience of the last five years that the use of oiled paper in the storage of Granny Smith Apples for long periods is a valuable preventive of scald.

A case of fruit which had been in cold storage at Batlow for six months was opened recently. It contained Apples of splendid quality, portion of which had been wrapped in the ordinary sulphite paper and others in paper treated with a mineral oil.

The former were almost covered with a brown discoloration known as scald, and almost unsaleable. The Apples in the oiled wrappers retained their pleasing yellowish-green color, and, it was considered, would be worth 12/- to 13/- a case in the markets.

Mr. Broadfoot, senior fruit instructor of the New South Wales Department of Agriculture, said a preliminary storage of the fruit in an unwrapped condition, for three to six weeks, was recommended in order to complete maturity. The fruit was kept under a normal temperature for this preliminary treatment. It was then wrapped in the oil paper, and the cases were stored at a temperature of 33 to 34 deg. Fah. for up to six months.

WOOD WOOL
Finest Grade for Export Fruit.
STRAWBERRY BOXES.
and Fruit Containers.
Prices and Particulars on Application to
AUSTRALIAN BERRY BASKETS CO.
175 Kent Street, Richmond, Vic.
Tel. J1263.

Queensland

Black Spot of Plums.

Thulimbah.

This disease has been known in the Stanthorpe (Qld.) district for four or five years, and is becoming more common every year. No variety of Plum appears to be immune, but the October Purple is most susceptible.

The disease is caused by a bacterium (Bacterium pruni), which attacks leaves, fruit, and wood. The infection makes its first appearance on the leaves, which become "shot holed" and later drop off. On the unripe fruit, black spots surrounded by a dark green ring appear, and these later crack, spoiling the fruit. The organism also attacks the current season's growth, especially at the buds; here it produces dark colored patches, which crack as the wood grows older, forming deep wounds in which the disease overwinters. The premature leaf fall checks growth, while the infection of the branches weakens them and ultimately causes dieback.

Infected trees should

be severely pruned,

and as much as possible of the infected wood cut out and burnt. A spray of sulphate of zinc and lime has been tested, and is recommended for the control of this disease; it is made up like Bordeaux mixture, using sulphate of zinc instead of bluestone (sulphate of copper). This should be used at the 6-4-40 strength at bud-burst, with several sprays of 4-4-40 mixture during the summer. Diseased fruit should be burnt or otherwise properly treated so as to destroy all danger of infection; boiling and soaking as sometimes done to combat fruit-fly would probably not be sufficient to destroy the causal organism of black spot.—District Correspondent.

BOX END BRANDING.

Will New System Displace Labels?

A new system of branding box ends has been developed, it being now possible to have colors and designs, as appearing on labels, branded on the box ends. This is known as the colorfuse method.

Machines for doing this work are at present in England. Messrs. H. E. Napier Ltd., of Wellington, N.Z., the Australasian representatives, state it is expected that in course of time the whole of the colorfuse printing will be done in Australia. The Victorian representative is Mr. H. J. Watkins, 1a Athol-street, Prahran, S.1, who will be pleased to supply full particulars.

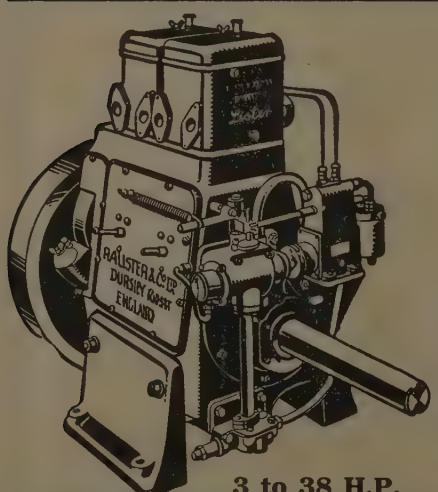
Recent advices are to the effect that the demand for colorfused box ends has been so great it has been difficult for the time to cope with the business.

Briefly, the idea is to do away with labels. Instead an excellent replica of any label is actually branded on the box ends.

FRUIT BY-PRODUCTS.

Special attention to the recovery of by-products from fruit is being given by the State Experiment Station, Pullman, Washington, U.S.A.

A recent report states that further refinements in the manufacture of a new fruit and vegetable concentrate have been made. Progress has been made in the preparation of a useful salt of an organic acid from Apple juice by both chemical and biochemical methods. Separation of sugars of special value also shows promise. Some of these products have therapeutic as well as food value.



3 to 38 H.P.

Lister BRITISH MADE

Crude Oil Engines cut 70% off Fuel Cost

1. Fuel for 3-h.p. costs one penny per hour. 5-h.p. costs 1¾d., 7½h.p. 2¼d., and up to 38-h.p. as marvellously low. Compare with your costs. It might pay to sell or scrap your present power unit and get a Lister.
2. Starts instantly. A swing of the flywheel and she's off—from dead cold crude oil, too!
3. No starting gadgets—no magneto, no spark plugs, no curburetter—just nothing to give trouble.
4. Absolutely reliable, steady power—suitable for driving anything anywhere.
5. Lister Diesels are EXTRAORDINARY—they are really wonderful engines.

With an engine of poor design and cheap make, the cost for repairs and wasted time will soon bring the price far above a trouble-free, long-lasting Lister.

Ask for information. Please mention this advertisement.

Mitchell & Co. PTY. LTD.
West Footscray, Melb.
Showroom: 596 Bourke St.

DRIED FRUITS — NEWS AND NOTES

Australian Dried Fruits.

Satisfactory Report from London.

The chairman of the Commonwealth Dried Fruits Export Control Board (Mr. W. C. F. Thomas), in his first report of the progress of the season of 1935, advises that the total shipments of Australian dried fruits to the United Kingdom from the present harvest amount to 15,074 tons.

To Canada, 3,383 tons have been shipped, and to New Zealand 552 tons.

Smaller quantities have been sent to the Eastern markets.

In the last few weeks in Great Britain sales amounting to 1,072 tons from the harvest of 1934 have been implemented, the averages having been as follow:—995 tons of Sultanas, at an average of £35/9/5; 21 tons of Currants, averaging £28/6/9, and 56 tons of Lexias, at an average of £29/14/3 a ton. The quantity of fruit unsold in Great Britain from the crop of 1934 is 1,939 tons. It is expected that the new season's Sultanas will meet with a ready response on arrival.

The

new season's Currants

have opened up fairly well, the average price realised for new season's fruit having been £41/8/5 a ton.

It is expected that the total crop of Australian dried fruit this year will probably amount to about 64,000 tons, of which some 51,000 tons will be available for export to all markets.

Prune Moisture Content.

Research Work of Prof. Nichols.

THE death of Prof. Nichols, of the University of California, last November, temporarily stopped some valuable research work in which he has been engaged for several years in relation to the fruit industry in that State.

His most recent investigations were directed to Prune moisture content and processing, and the dextrose-levulose ratio of dried Prunes. A summary of his findings, up to the time of his death, will shortly be released in book form and will elaborate the following brief review.

More careful drying and processing of Prunes is necessitated by the Government limitation of 25 per cent. moisture content in the flesh of dried Prunes. A careful study was made of some 65 samples of 1932 and 1933 crop taken from growers' bins, All samples were recorded for count per pound, specific gravity, moisture content and susceptibility to fermentation.

After treatment at the laboratory, some conclusions were arrived at, of which the following stand out:—

1. The moisture content of larger sizes is greater than that of smaller sizes upon delivery. This difference appears to decrease after storage in bins for a long period.
2. The proportion of pit decreases as the size of the Prunes increase.
3. Moisture content of pits decreases as size decreases.
4. Spoilage by mould appears to take place only at moisture content above 24 per cent.
5. Sucrose content and the ratio of dextrose to levulose varies considerably and appear to have no relation to size, total sugar nor to moisture take-up in processing.
6. Moisture take-up is greater when the initial moisture content is lower, but is higher with decreasing specific gravity of the fruit.
7. The rate of moisture take-up is definitely related to size of the fruit, it increased as size decreased.

The experiments suggested that it is inadvisable to process Prunes that contains over 20 per cent. moisture, small sized fruit should not contain over 15 per cent. of moisture unless the processing time can be greatly reduced.

The late Prof. Nichols therefore advised that, in view of the regulations, the only safe method is to test each lot of Prunes processed and to use such fruit as most nearly conforms to the above findings.

ENGLISH FRUIT-DRYING PLAN IS LIMITED.

The report in a Sydney daily newspaper that a horticulturist of Sussex, England, who had long experience of fruit-drying abroad, had claimed that fruit-drying could be as successful in England as in Australia and California, contains no threat to the Australian dried fruits industry, according to Mr. G. C. Savage, director of fruit culture.

The report stated the claimant believed that drying was the only hope for the British fruit industry, which had a glut of home-grown fruits last year. He added that the drying process would not require large capital and would solve the problem of over-stocked markets.

In support of his contention that the message contains no threat to the Australian industry, Mr. Savage said that the bulk of our dried fruit exports to the United Kingdom was Currants, Sultanas, Lexias, Peaches, Apricots, Pears and Prunes. He did not consider that England could develop an industry to interfere with our export, with the possible exception of dried Apples and Pears. The English climate on the whole was not satisfactory for sun-drying, and the bulk of the fruit would have to be dehydrated. Dehydrating was most successful for Apple drying, but for Pears it was necessary to expose the fruit to two or three days' sunlight to obtain the golden color. Of all the Pear varieties,

(Continued on page 271.)

Plant **APPLES** *for* **PROFIT!**

GOODMAN'S FRUIT TREES

Goodman's offer finest quality Trees suitable for all districts and for all purposes.

APPLES grafted underground on Spy and on seedlings. All varieties available.

CHERRIES worked on genuine Mazzard—also on Kentish Stock.

CLINGSTONE PEACHES. Excellent stocks also in all other varieties of Fruit Trees, Berry Fruits, Citrus Trees, Nuts, etc., etc.

Expert packing and prompt despatch to any part of Australia.

Highest Satisfaction Guaranteed.

Centenary Fruit Tree Catalogue post free on request.

C. J. Goodman

Picnic Point Nurseries -- Bairnsdale -- Victoria

TASMANIA

State Fruit Advisory Board Meeting — Shortage of Fruit for Space Requirements—Freight Reduction Desired —The Standard Case Question

AT the March meeting of the Tasmanian State Fruit Advisory Board there were present Messrs. B. J. Pearsall, M.H.A. (chairman), W. H. Calvert, M.L.C., F. W. Harrison, A. Dickson, O. J. Morrisby, H. A. Court, R. W. Humphreys, J. P. Piggott, and the Secretary, A. J. Honey.

Space Requirements.

Reports were received that allotment of Apple space on vessels for overseas export was not being filled. The chairman said delegates had fought hard to get an adequate State quota, and it was essential that the space should be filled.

Mr. Calvert thought many growers had originally over-applied for space.

Mr. Dickson said there were 1,500 cases waiting on the wharf at Port Huon for shipment to Sydney. He moved Mr. Morrisby seconded:

"That in order to facilitate shipping and minimise risk of a 'dead freight' charge, and to avoid loss of the 2d. a case allowance, growers are urged to forward fruit for shipment in good time, and failing their ability to fill space, to notify shipping agents early."

The motion was carried.

Overseas Freight Rates.

At the instance of Mr. H. A. Court, it was decided:

That the Apple and Pear Council be apprised of the fact that other industries are approaching the Acting Prime Minister for a reduction of freights, and requested to endeavor to place before the Acting Prime Minister the position regarding overseas fruit freights.

Standard Case.

It was decided on the motion of Messrs. Dickson and Court to request the press to invite opinions from growers as to the best type of container for Apple export—the dump case or "Canadian" standard.

Mr. Dickson gave notice of motion for next meeting:

"That as the question of a standard case appears to be contentious, this Board recommends to the Minister for Agriculture that the matter be submitted to the fruitgrowers when a poll is taken, and their opinion obtained as to the advisability of retaining the dump case or adopting the Canadian case, as a standard case."

Tasmanian Fruit in Sydney

Mr. B. O. Plummer Appointed as Representative.

The Tasmanian State Government recently appointed Mr. B. O. Plummer to represent Tasmania on the Sydney markets.

At the last meeting of the Tasmanian State Fruit Advisory Board, the chairman (Mr. B. J. Pearsall, M.H.A.), welcomed Mr. Plummer as one who had always taken a keen interest in the industry: he hoped there would be less rough handling on wharves.

Mr. Court said he hoped Mr. Plummer would have a free hand and that his instructions would cover Brisbane also. Many improvements were urgently needed.

The importance of the country trade in N.S.W. was stressed by Mr. Calvert.

In reply, Mr. Plummer said he wanted to gain the confidence of all with whom he had to deal. Nothing revolutionary would be done. Certain matters needed rectifying and these would have first attention. Regular reports would be furnished.

Loading Fruit at Hobart

High Quality Fruit, Well Packed.

The generally high quality of Tasmanian fruit was favorably referred to in a report recently issued by Mr. T. Barnaby, senior fruitgrowers' representative on the Hobart wharves. Mr. Barnaby speaks highly of the good appearance of the cases, the packing and branding—a great improvement on previous seasons. Certain improvements in delivery arrangements were suggested when several vessels were loading at once. The fear of shortage of shipping space had been removed, in fact it was now a question of filling the space available: this had involved at times a good deal of cross carting from pier to pier to fill ships' holds.

Arrangements are steadily proceeding in Tasmania for the election of the Board under recent Act for organising the Tasmanian fruit industry.

It is expected that the election for the new Board will be held on or about May 15.

QUEENSLAND OFFICER GOES TO U.S.A.

Production to be Studied.

In accordance with departmental practice, Mr. J. Freeman, Senior Instructor in Fruit Culture, will shortly leave for California to study production and marketing methods. Mr. Freeman has had large experience in the Department of Agriculture in the Northern State. He will be absent about six months.

BROADCASTING.

On May 7, Mr. J. L. Provan, B.Agr.Sc., Horticultural Research Officer, Victorian Department of Agriculture, will give a broadcast talk on **The Drainage of Orchard Soils** — from 3AR Melbourne, from 6.15 p.m. to 6.30 p.m.

QUICK SALE BY AUCTION

BREMEN

FRUCHTHANDEL GESELLSCHAFT

SCIPIO & FISCHER

BREMEN

Cables: Orange Bremen.

DRIED FRUITS—NEWS & NOTES.

(Continued from page 269.)

Williams were the most satisfactory for this purpose.

It had to be remembered, Mr. Savage continued, that Grapes and most stone fruits in England were grown either in hot-houses or on a wall (for greater heat) and were thus much too valuable for drying.

ADVERTISING DRIED FRUITS IN THE PUBLIC SCHOOLS.

This year, instead of the three publicity vans of the Dried Fruits Board being laid up for three months as usual, they have been utilised in visiting metropolitan State schools in Melbourne and Adelaide. Lectures and pictures of the dried fruit industry have been provided by the officers in charge of the vans, and thus thousands of young Australians have been impressed with the value and palatability of dried fruits, both for dessert and for use in cooking. One teacher advised us that it is excellent propaganda and cannot fail to increase sales.

MEASURING MOISTURE IN DRIED FRUITS.

The work of Mr. Orton, who is investigating from the chemical viewpoint the processing of dried fruit and the associated problems, has this year included a study of methods of measuring moisture, writes Mr. A. V. Lyon in a recent issue of "The Australian Dried Fruit News."

There has been considerable interest in the electrical moisture meter used this year by Mr. Orton for measuring the moisture of dried fruits. The principle of the instrument is based on the resistance of dried fruit as a conducting medium for an electric current. This resistance varies with moisture, and it has been found possible to calibrate the instrument in such a way that variations of resistance can be read and interpreted as variations in moisture. An instrument based on the same principle (The Blinker) is already in use for checking the moisture standards in timber.

It is considered that the instrument will have a value for comparison of the moisture content of various parcels of fruit in cases of dispute. In the Mildura district particularly, cases in which the grower, the packer and the Government inspector are at variance frequently crop up. It is felt by all concerned that it is far better to have a figure representing the moisture content of the fruit, than to depend as hitherto on human judgment. It is hoped that the instrument will achieve this purpose. It will also be utilised for investigations dealing with the keeping qualities of dried fruit as affected by moisture; and for measuring the moisture content of fruit taken in for further drying.

SCIENTIFIC INVESTIGATION INTO PEACH TREE PESTS.

C.S.I.R. Will Investigate Oriental Peach Moth.

For several seasons Peach growers, particularly in the Goulburn Valley, Victoria, have suffered severe loss owing to the ravages of the Oriental Peach moth. Good work has been performed by the Department of Agriculture in carrying out investigations. Growers will now be greatly interested to know that the C.S.I.R. has planned a comprehensive programme.

Applications have been invited for a junior entomologist possessing a University degree or its equivalent, and who has undertaken research work in entomology to conduct the investigations, at a salary ranging from £308 to £438.

In its last annual report, the Australian Canned Fruits Committee stressed the fact that the marketing of Australian canned fruit in London would be greatly simplified if losses caused by pests, and which added considerably to the cost of production, could be reduced.

TRADE WITH THE EAST.

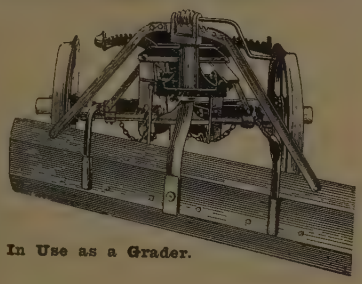
It is expected that Australian Trade Commissioners for the Near East will be appointed in the near future by the Federal Government.

Gibbins' Ploughs

for the Orchardist!

Gibbins Reversible Two-Disc Plough.

The patent Gibbins Reversible Plough, as illustrated, embodies special features which enable this plough to be worked right up to the butts of the trees. With the Gibbins, you can throw on to the trees or away from the trees. You can also convert the Gibbins Reversible Plough into a Spring Tyne Cultivator, Disc Cultivator and Grader.

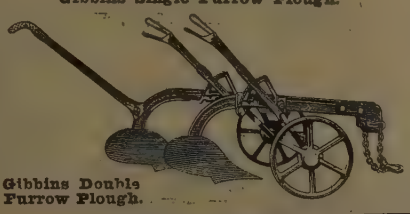


In Use as a Grader.

Here is the new Gibbins Grader fitted to the frame of the Gibbins Reversible Plough. It is proving very popular with orchardists. This patent Grader is 5 feet in length with a blade 10 inches deep. It can be regulated to depth, and can be tilted up and down to suit requirements, with a variation of from one to six inches. The cutting blade is simply and quickly adjustable to give the desired angle of cut.

Gibbins Single Furrow Plough.

This is the ideal plough for the orchardist. The handles are pivoted, and may be moved to either side very quickly. It is now recognised as the premier plough for ploughing "on" or "off" right up to the tree butts. It is a strongly built plough, and is very light in draught.



Gibbins Double Furrow Plough.

This is the Gibbins Two-Furrow Orchard and Vineyard Plough. It is extra strong and durable, and is suitable for two light horses. It is fitted with adjustable head rack, and the draught can be moved sideways to any point required, thereby enabling the horses to work well out from the branches of the trees when either ploughing on or off.

CASH OR TERMS. — Illustrated Catalogue With Pleasure.

GIBBINS FARM IMPLEMENT CO. LTD., Footscray, Vic.

THE JAVA "DURIAN."

Fruit of the Gods.

AMONGST the many exotic fruits produced under natural conditions in tropical countries and coveted by fanciers in colder countries who attempt to rear such in hot houses, the Mangosteen is comparatively well known, but few have heard of, and fewer have tasted, the Java Durian, said to have the most delicious flavor of any tropical fruits.

The fruit of the Durian is so greatly desired by the natives of Java that the possession of even one tree often causes tribal wars. The ripening season is a time of rejoicing, and the fruit is jealously guarded, even in a country in which Nature has been so beneficent in providing fruits galore for the mere taking.

The Durian is a night bloomer and is pollinated by certain moths which seem to have been created for this special purpose. It has, however, a rather objectionable smell to some people, and as is the case of many tropical fruits, a taste has to be acquired before its rich flavor is appreciated.

The natives say that the eating of Durian rejuvenates one, which is probably the only reason why they fight over possession of groves or single trees of this unusual fruit. Monkey glands and such-like western substitutes are unknown to the natives who, like their Western brothers, are vain enough to chase the elusive perpetual youth so sought for by us all.

Mr. Charles H. Nordhoff, joint author of "Mutiny of the Bounty," who is now living in Tahiti, on a private orchard containing some fine Durian trees, wrote about them as follows:—

"I've brought a hundred kinds of fruit,
And ornamental trees, to boot,
To plant about my door.
Not one man in this crowd, I ween,
Has tasted of the Mangosteen
Or Durian before.
So men whose hair is sparse and grey
Should travel East without delay,
In ships, canoes or boats—
To eat the fruit that fires the mild—
The fruit that helps the growing child—
The fruit that makes tame women wild,
And old men skip like goats!"

APPRECIATION FROM WESTERN AUSTRALIA.

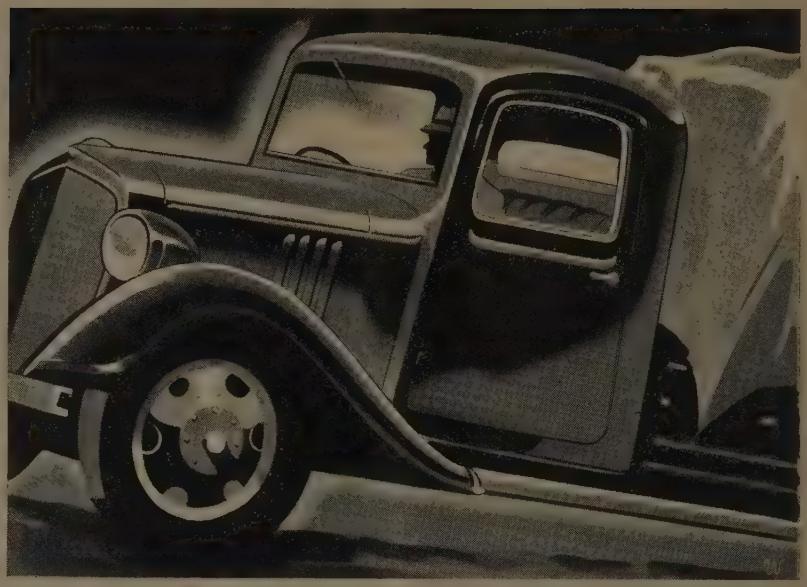
(The Editor, "Fruit World.")

Dear Sir, — Please find enclosed my cheque for subscription to June, 1937. I find the "Fruit World" a very interesting journal for fruit growers, and the "Annual" improves as the years roll past us.

Wishing you more power in your good work.

Yours faithfully (signed "E.B.,"
Lower Chittering, W.A.

27/2/35.



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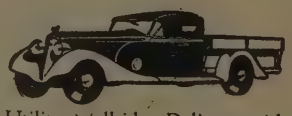
CAST IRON PISTONS
LOW REVVING ENGINE

These three features mean greater operating economy, greater freedom from repairs, greater dependability. They're TRUCK features proved in many millions of miles to be important if a truck is to "Stand the gaff." Chevrolet Utilities as well as Chevrolet Trucks incorporate all three and that's one reason why Chevrolet leads the world in sales. Whether your requirements are for light haulage or for heavy duty work you will find among the complete range of Chevrolet Utilities and Trucks a model to suit your requirements exactly.

Chassis Prices from £200 Plus Sales Tax



Utility Wellsides Delivery with roadster front. £240 . . . plus Sales Tax.

Utility Open Delivery with coupe front. £275 . . . plus Sales Tax.

METROPOLITAN DISTRIBUTORS:

PRESTON MOTORS Pty. Ltd.

114 Franklin St., Melb., C.1.

Motor Cars and Trucks

Useful Hints

Brakes

BRAKE SQUEALING is caused generally by the vibration of drums when the brakes are applied. Some drums are acoustically better designed than others, i.e., drums that have no flange at the open end. A visit to an experienced garage man should be made, when brake squealing would soon be silenced.

Brake Shudder results when linings have a tendency to jamb or lock against the drums. Contributory factors to this state of things are eccentric drums, distortion of shoes, the presence of heavy deposits of rust or accumulation of a mixture of gritty material, composed of road grit and decomposed grease. The only effective remedy is to dismantle the drums and shoes. Unless the owner has had experience in repairing brakes, this is really another job for the experienced mechanic.

IF CAR IS STORED.

When storing a car away for a long period or even a few weeks there are certain precautions which should be taken to prevent its deterioration, and the owner is advised to keep these precautions in mind.

Firstly, it should be thoroughly washed and all the accumulated mud washed off, thus ensuring that no gradual rusting will take place. Then after the metal parts have been polished they should be lightly smeared with oil or vaseline. Contrary to general practice, the radiator should not be drained, but well filled, for when the core becomes dry the scale and rust on the surface is likely to harden. Lastly, the chasis should be well greased, and if the period of storage is to exceed more than three or four weeks the battery should be removed and placed in a service station, where it can be recharged when necessary.

AUSTRALIAN CARS USE OWN TIMBER.

Most of the wood used in Australian motor bodies is Tasmanian hardwood. General Motors-Holden's Ltd., purchase the timber fifteen months in advance, and over six million super feet will be used during 1935/36, valued at £71,000. It is interesting to note that the King of Iraq (Mesopotamia) and the El-Amir of Al Hassa, Egypt, have ordered cars from the above company, and each has stipulated that they must have Australian bodies.

BAD STARTING.

Let the Engine Stop.

That engine starter gears, particularly the toothed ring on the flywheel, have been ruined, long before they should have shown signs of serious wear, by the reluctance of some drivers to wait for the flywheel to stop rotating before they use the starter switch a second time if the engine shows signs of coming to rest is pointed out in the latest issue of "The Morris Owner."

The following is the procedure often observed when a driver sets about starting his engine from cold. Throttle, mixture and other controls are set, the ignition switched on and the starter button pressed; the engine turns round and begins to fire, so the starter button is released. So far, so good.

Then the engine—being cold and reluctant to run under its own power — gives clear evidence that it is about to stop. The driver immediately presses the switch button again, and a grinding and crashing of starter gears is heard, far worse than anything ordinarily associated with them. Perhaps the engine runs and keeps on running this time; but perhaps it again is inclined to stop, and again—not only once, but maybe several times thereafter—the driver will press the starter button before the flywheel comes to a standstill.

This kind of thing may do more harm to the starter gears on only one cold morning than would be done during the whole of a winter's daily start made in the correct way.

WHEN FIREWOOD IS SCARCE.

If the tourist finds that he has to make camp where there is a dearth of dry fuel for cooking purposes, or an open fire might be dangerous because of the risk of its spreading to the surrounding bush, he should recall that an old petrol or kerosene tin makes an excellent stove. All that is necessary is to stamp a few slots in one or more sides of the tin with an axe and to remove the top. It will then be found that a mere handful of fuel will suffice to make a roaring fire which will enable a meal to be prepared quickly.

NEVER RACE AN ENGINE AT THE START.

After a long engine rest, the oil has tended to work downwards from the various friction points to the sump. Whatever your circulating system may be, it takes time to get the oil back to these points. Run the engine, therefore, ticking over until the oil gauge shows its pressure, and then run the engine briskly for a minute, after which the car may be driven off. "Running briskly" does not mean racing the engine. Racing at the start means running on dry bearings, and is a fertile, though little-suspected, source of trouble. Cylinder walls, pistons and rings suffer damage, which is not apparent at the time, but develops later, and causes excessive oil and spirit consumption, as well as costly repairs.

(Continued on page 274.)

M. V. POINT MOTORS (AUST.) PTY. LTD.

FOR BETTER USED CARS AND TRUCKS AT LOWER PRICES.

This House absolutely GUARANTEES every Car and Truck to be in excellent running order. Prices are extremely low, and represent the highest value obtainable. Easy terms to suit YOUR convenience will be arranged with pleasure. If you want a good reliable Used Car or Truck see M.V. Point Motors First.

THEY STAND BEHIND THE CARS AND TRUCKS THEY SELL.

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Every Man's Friend

Provides Modern Comfort and Convenience in the Home and Orchard

An effective Crazy Paving Path.

CONCRETE is man's most valuable substitute for stone and timber. It is even something more than a substitute, as concrete actually supersedes, and, in many ways is superior to, those materials.

This is, indeed, the age of concrete, and the high degree of modern comfort and convenience in city and country life has its base in the use and adaptability of concrete. In foundations, walls, floors, pavements, tanks, as well as for countless special uses, concrete construction is recognised as the best.

The following list is suggestive of the many improvements around the home for which concrete is particularly suited:—Basement floors, drives, footpaths, garages, septic tanks, steps, flower boxes, ornamental pools, etc.

The cost of the materials needed for making good concrete is usually less than for any other permanent building material. Sand and pebbles, or crushed stone, which constitute the bulk of the materials required, can usually be obtained locally, and the cement is carried in stock by local storekeepers. Anyone who is careful to observe the simple rules for making concrete can make and place concrete satisfactorily, even though he may have had no previous experience.

Concrete Steps. The first place in the house to wear out and decay is the flight of outside wooden steps. Concrete steps will last for ever. Every house should have them. They are easily kept clean; they are rot-proof, and will never become slippery.

Concrete Walks, Floors, Etc. The beginner need not hesitate to build concrete walks, floors, or other similar concrete work. The principles which apply to the construction of a concrete footpath apply also in the construction of a floor, as a floor is in essentials like a number of footpaths placed side by side. Walks, floors and pavements should always rest on a good firm base. If the soil on which they are to be laid is well drained the concrete can be placed directly on it after all loam, refuse, grass, roots and other perishable material have been removed and the area has been well compacted. If the soil is not well drained, a sub-base should be provided of well-compacted, clean, coarse gravel, clean cinders, or sand.

Ornamental Pools. These are a never-ending source of delight. From early spring until late in autumn, your garden pool sets a beautiful stage for enjoyment of colorful fish and aquatic plants. The ornamental pool is the centre of enjoyment in your "outdoor living room." The general character of your garden—whether it is formal or informal in a natural setting—will suggest the style. Small species of Water Lilies require only a small pool—three feet or more in diameter. Larger varieties must have a pool at least six feet wide. Depth depends upon the type of planting. For Water Lilies, a depth of at least 22 inches is desirable. Garden pools may be combined with rock gardens, often with a miniature waterfall running down a rocky course into the pool.

Booklets that explain and illustrate almost every use of concrete, from the smallest farm or home improvement, are published, and may be obtained free from Australian Cement Ltd., 422 Collins-street, Melbourne, C.1.

This company will be pleased to receive and answer questions from readers on all matters relating to the use of concrete.

MOTOR CARS AND TRUCKS.

(Continued from page 273.)

PETROL.

Petrol is now so common that we often get careless with it, until something happens. The Texas Company warns drivers that petrol is the most powerful explosive commonly known. Scientists say that petrol contains three times as much energy as nitro-glycerine and four times as much energy as dynamite (T.N.T.), therefore we should not fool with it. In motor cars it should be controlled and burn or explode smoothly.

This matter of keeping petrol burning smoothly and uniformly, has become one of great importance and concern. To increase the efficiency and over-all performance of the engine, manufacturers have necessarily in recent years, raised the compression pressure under which the engine operates. This is accomplished mechanically by reducing the size of the combustion chamber, in other words, the same amount of petrol and air is drawn into the cylinders through the carburettor, is crowded into a smaller space so that when ignition is applied, through the sparking plugs, the expansion, and, therefore, the pressure, as exerted on the pistons by the burning gas, is greatly increased. This brings forth a greater development of power and can be detected by the driver in the form of better acceleration, easier hill climbing, and lessened vibration.

Motorists have come to appreciate and demand motor cars, which are powered by high compression or high efficiency engines, and, manufacturers of motor spirits are quick to recognise the necessity of supplying a fuel which will bring out the added performance of such mechanical improvements. Motor fuels which were used several years ago are not considered adequate for the present motor car engine.

Drivers get the best results if they find out which brand of petrol best suits their particular make of engine, not necessarily the cheapest brand, and use it exclusively.

THE . . .
Market Grower
Items of Interest

Official Organ of the Market Gardeners and Fruitgrowers Society of Victoria.

President: E. A. Le Page. Vice President: Cr. A. Bunny.
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Also Official Organ of the Koondrook & Barham Tomato Growers' Association.

Cauliflower Production

GOOD SEED ESSENTIAL — HINTS ON RAISING SEEDLINGS IN SUNKEN OR RAISED BEDS — TRANSPLANTING — WATERING TO ENSURE EVEN CONTINUOUS GROWTH — FERTILISERS AND GREEN MANURES — RECOMMENDED VARIETIES.

(By W. E. Collins, W.A. Dept. of Agriculture, in "W.A. Journal of Agriculture.")

CAULIFLOWER is not one of the easiest crops to produce. It requires close personal supervision and congenial climatic and soil conditions. Since the industry is a highly specialised one, the individual who grows Cauliflowers consistently year after year, will find it more profitable, as a rule, than one who produces them intermittently.

Cauliflower develops best in those areas where the temperature during the latter part of the growing period is cool and uniform, and where fairly moist conditions prevail. Extremely low temperatures while the plant is young may cause it to "button" or head prematurely. Low temperatures delay maturity, reduce the size, and consequently lower the acre yield.

Hot weather during transplanting time may interfere with the rapid establishment of the plants in the field. If it occurs while the head is maturing it often causes yellowing and gives it that "fuzzy" appearance so often met with. High temperatures appear also to stimulate the growth of the head leaves, and in many cases, causes them to appear through the top of the flower. The head itself often grows so rapidly under these conditions that harvesting at the best stage of development is almost impossible, especially when large numbers are being handled. Areas subject to cool climatic conditions usually suffer small losses from overmaturity.

Cauliflower should always have a sufficient supply of moisture in the soil to insure a continuous and steady growth. It does not thrive in dry sections, especially if they are subject to extremes of temperature or to dry wind storms. This crop makes its best development in a moist atmosphere. Well distributed rainfall or carefully regulated irrigations are necessary for the successful production of this crop. These conditions help to produce maximum yields, large sizes, and good quality.

Cauliflower can be grown profitably on a variety of soil types. Generally speaking, however, the soil selected should be fertile, of good physical condition, retentive of moisture, and well drained. Where a number of

different soil types

are available, the medium and heavy soils should be used for varieties suitable for late plantings, as they are cool and retain moisture well. When it is to mature during the rainy season, the crop should be planted in sandy or silty soils. These are usually so well drained that cultivation and harvesting can be done without puddling the land. Though such soils produce good crops during the rainy season, they make low yields when used for very early or very late plantings.

Soils of very light texture should be used for Cauliflower production only when they are abundantly supplied with organic matter, which increases the water-holding capacity and cuts down labor by decreasing the number of irrigations needed.

Care With Seedlings.

In most of the Cauliflower-growing districts around the metropolitan area, the plants are started in the open. The

two types of seed beds

generally used are the sunken panel bed, and the raised seed bed.

Where the soil is light and porous and not subject to packing, sunken seed beds are preferable. A given area of land in sunken panels will probably accommodate more plants than the same area in raised seed beds. Moreover, sunken beds have a minimum of surface exposed, and hence dry out more slowly than raised beds.

On the heavier types of soil that form a thick crust after watering, raised beds have usually been found more satisfactory, as they facilitate quick growth.

Seed should be sown in drills, 12 ins. apart and sufficiently deep to be in contact with moist soil, but not deep enough to prevent the germinating seedlings from reaching the surface. One-half to three-fourths of an inch in depth is usually sufficient. In hot dry weather,

Cauliflowers need cool moist conditions.

Medium and heavy soils are best for late plantings.

For light soils, sunken seed beds are generally best for raising seedlings: for heavy ground use raised seed beds.

Varieties and strains must be planted at their correct times.

In manuring, phosphorus and potash are necessary, but the principal element needed is nitrogen.

To prevent discoloration, tie or fix the outside leaves over the head.

Useful varieties are Mid-summer Beauty, Dwarf Erfurt, All-the-year-round, Veitch's Autumn Giant and Early Snowball.

Good seed is absolutely necessary.

PLANE DUSTS
"Plane" Brand Dusts
"Beauty" (Knapsack) Dusters
"Superior" (Rotary) Dusters
ARE MANUFACTURED BY
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MELBOURNE

the depth should be greater than in cool moist weather. Sow for early crops during December, and continue sowing for later crops until June.

A chart of the varieties and the dates of planting in the seed beds will help the grower to avoid confusion and mistakes at times of transplanting, when more than one variety is sown.

Care should be exercised to develop healthy stocky plants. If the seedlings are too thick in the bed, they should be thinned to prevent overcrowding. Under the best soil and climatic conditions, and with a well-prepared seed bed, it may be possible to produce good plants without the addition of water after the seed has been sown. The best growers water only when absolutely necessary.

A watering shortly before pulling the plants produces succulent roots, many of which die during transplanting.

The shock of transplanting is less severe if the plants have been deprived of water somewhat and have been allowed to harden, than if they are in a tender, rapidly-growing condition.

If the soil is hard and the plants cannot be pulled readily, the beds should be watered the day preceding pulling. It is best not to wet more of the plant bed than will be used the following day. However, if the soil is loose this watering is unnecessary. Plants are usually of sufficient size for transplanting six to nine weeks after seeding, depending upon the time of the year. A surplus of plants should be grown, so that only the best and strongest need be used for transplanting. Only the largest are removed at first. A watering should be given immediately after the first pulling to stimulate the growth of the remaining plants.

An effort should be made to secure
a uniform continuous growth.
If plants remain in the seed bed for too long a time, growth is severely checked and premature heading is often brought about. Soil which does not hold water well should be watered frequently enough to promote an even and normal growth. Water should be withheld about a week or ten days before pulling. Usually only two pullings should be made from a bed. If the leaves are very large, they may be trimmed to reduce the loss of water. Plants which are well hardened need very little, if any, cutting back of the leaves.

After the plants are pulled, every effort should be made to get them into the ground quickly, and whatever replanting is necessary, should be done as soon as possible. Crowding should be avoided, as it reduces the size of the head. Rows should be 34 to 36 inches apart, and plants about 24 to 30 inches apart in the row, depending upon the variety.

It is very essential that the different varieties and strains be planted at the proper time.

Experienced growers claim that each variety has a definite limit in planting dates, beyond which favorable results cannot be secured, and that only varieties which have been developed for a particular season of the year should be used.

Some growers make
plantings every ten days
or so, beginning with "first earlies" then continuing with "second earlies," and so on to the later varieties. Others specialise in a general or main crop, such as the **"Mid-Summer Beauty"** or the later **"Veitch's Autumn Giant."** Another variety, **"All the Year Round"** has found favor with not a few as a single variety cropper. However, though different growers vary their planting procedure somewhat to suit their local conditions, their main object is to have a continuous harvest throughout the season.

Hints on Manuring.

The aim of the grower should be to produce heads of a medium large size, for which there is usually a good demand, therefore the soil must be made sufficiently fertile to produce this quality. A large head cannot be obtained from a small plant. The plant food elements should be present in available form and in sufficient amount to give a continuous growth.

While phosphorus, potash, and other plant food elements are necessary, the one most generally needed is nitrogen.

There is considerable difference of opinion among growers as to the value of the various fertilisers. Many of the more successful growers have large supplies of stockyard manure available. Cauliflower fits in well with dairying; and an abundant supply of manure may thus be obtained. Where livestock is kept on the same farm the task of maintaining the soil in a highly productive condition is not a difficult one. If the farmyard manure cannot be obtained in sufficient amount to supply the needed organic matter,

green manure crops

alone or with commercial fertiliser may be used. The cover crop or green manure crop, preferably a legume chosen, should be adapted to the local conditions, and should produce a good tonnage of vegetable matter to plough under.

In certain Cauliflower sections, the high price of land prohibits the planting of green manure crops, and the productivity of the soil, therefore, must be maintained largely by the use of commercial fertilisers. The three constituents supplied in a complete fertiliser are nitrogen, phosphorus and potash, and these are to be found in well-balanced proportions in the ordinary commercial Potato manures.

It is impossible to specify a single kind or a uniform rate of application of fertiliser for the entire State, or for any large district within the State. It is best for each grower to make a number of tests of his own land to determine the kind to use and the most profitable amount to supply. In general,

The HOWARD Patent ROTARY HOE

MODEL 8
Solved Our Biggest Problem!

The Manager,
Howard Auto-Cultivators Ltd.
NORTHMEAD.

TUMUT,
24th September, 1934.

Dear Mr. Howard,

You at least deserve an honest letter of thanks. To-day, our Rotary Hoe "Eight" completes its first year of work—150 acres at just under one gallon of benzine per acre.

This machine has displaced one man, six horses, one three-furrow plough, a roller and a disc and light tooth harrow. Our plant now consists of the Hoe, light harrow, millet dropper and straddle row cultivator. These four units produced 50 tons of broom millet last season.

The Hoe solved our biggest problem—to work the ground thoroughly and quickly. We have found the machine a constant source of satisfaction and surprise. With it three men rushed in 1¼ acres of potatoes in 7 hours from uncultivated ground to the covered drills. Last week we broke up in 50 minutes a half acre pig stye, five inches deep in second gear.

Our work is not casually spread over the year; when getting a crop in we must have results under exacting conditions for six days per week.

With intelligent operation and care the hoe does this admirably.

Many thanks for many hours and many pounds saved.

Yours truly, McDONALD BROS.,
(Signed) Donald McDonald, Manager.

Write for Booklet F.W.8.

HOWARD AUTO CULTIVATORS LTD.
NORTHMEAD PARRAMATTA N.S.W.
PHONES: UW8984, UW8842. AGENCIES IN ALL OTHER STATES

growers have found that it is the lack of nitrogen which limits the growth of the Cauliflower plant.

Nitrogenous fertilisers, therefore, usually give the greatest growth response, and a mixture much in favor with our most successful growers is composed of Potato manure and blood and bone in the proportion of five bags of the former to three of the latter. An application of about 10 to 12 cwts. of this mixture to the acre should give good results.

If the plants are making a slow growth or if they appear yellowish green, a side dressing of 100 to 150 pounds of nitrate of soda or sulphate of ammonia to the acre usually causes a quickening of the growth rate and a darkening of the leaves.

The market demand is for

a pure white head.

Varieties such as **"Early Snowball"** have a small amount of foliage, which neither covers the head nor protects it from the weather.

To prevent discoloration it is necessary, therefore, to gather together, and tie or pin the outside leaves over the head. Breaking the leaves over the head, a method sometimes used, is unsatisfactory, as the wind is likely to displace them. Moreover, if they decay, a yellowing of the head results.

When the head is small, it is well protected by the small inner incurving leaves. As it increases in size, the leaves gradually lift, thus exposing the head.

Some varieties of Cauliflower, such as the **"Mid-Summer Beauty," "Dwarf Erfurt," "All the Year Round,"** etc., are sufficiently protected until the heads are ready for harvest and, therefore, need not be tied. The length of time necessary for the development of the heads to a marketable condition after tying depends chiefly upon the temperature. During warm weather they may be ready for harvest within two or three days, but during the cooler part of the year, as long as two weeks may be required.

It is imperative that the heads be cut while they are compact. It is a common error to allow the head to get past its prime before cutting. There is very little danger of cutting the heads before they have made their proper size. If the plants have not made good growth, the heads will not grow large, regardless of the length of time they remain in the field.

It is generally considered a better policy to disregard the size feature at the time of harvest and consider only the stage of maturity. Again, the stage of development of the head affects very markedly its carrying qualities. The longer heads are left in the field after they are ready to cut, the more wilted they appear when they reach the market.

If the head has begun to separate and spread, it deteriorates much faster than one compact at the time of cutting. Occasionally during a rush period, the Cauliflower heads are cut and left inverted in the field for a short time. This checks the growth and prevents losses that might otherwise occur. Growers should always picture the appearance of the head at the time of arrival at market.

Appearance is an important factor in the sale of any commodity, and even one over-mature head in a pack may spoil the appearance of the entire lot. Over-mature heads are very conspicuous because the advanced growth spreads the leaves and exposes the flower. Young ones are more concealed in their jacket leaves and, therefore, attract less attention. Leafy heads are those which have small green leaves appearing between the flower segment. Heads of this type are undesirable, and if possessing many leaflets, should be discarded. This condition is usually due to seed of poor quality.

Good Seed Necessary.

So far, the chief problem of the Cauliflower grower has been that of acquiring good seed. As a general thing the production of seed by the average grower is not to be recommended, because of the insufficient care exercised in the selection of seed stock and in rogueing out the undesirable plants. Although a little seed has been produced by individual growers from good strains introduced from Italy and Holland, so far as is known no one has made a special effort to improve this stock. As a result, in those districts where Cauliflower is an important commercial crop, opportunity awaits anyone who will make a specialty of breeding strains of higher quality and greater uniformity.

The best means of obtaining good seed is to reserve several well-rogued rows on one side of the field, far removed from any other plants of the same family. Cauliflower is mostly insect pollinated, so the greater the distance the less the danger of cross pollination. Only the best heads in these rows should be allowed to develop. Often neighboring plants, too poor to cut for market, are unintentionally allowed to bloom. These cross readily with the selected plants, and the progeny are usually worthless. Since Cauliflower, and all varieties of Cabbage, Kale, Brussels Sprouts, and Kohl Rabi cross freely, these crops should not be grown in close proximity.

It is sometimes necessary to cover the maturing plants with mosquito netting, so that birds cannot break open the pods and eat the seed. When the pods are brown in color, the plants are cut and laid on large canvas sheets to dry. In two or three weeks, the seeds can be rolled out with a large wooden roller, or threshed out with a flail. The seed is then cleaned and placed in strong muslin bags. These bags are only partially filled so that they may be turned about every day for about two weeks, and the seed cured thoroughly.

VEGETABLES AT SYDNEY ROYAL.

Exceptional Potato Exhibits.

The Potatoes exhibited at the 1935 Sydney Royal Show were the finest ever shown at the Royal, in the opinion of the judge, Mr. A. J. Pinn, Agricultural Department Instructor, an acknowledged authority on Potatoes in New South Wales.

To Mr. D. Wright, Taralga, went pride of place, gaining first with Factor and second with Carman in that section, and to Mr. S. Corby, also of Taralga, who won in the Brownell's Beauty, Adirondack, Surprise and Symington.

In the Onion class, Mr. J. R. Gould (Milton) won in Brown Spanish with an excellent and compact type. He also won in the Globe class.

In the collection of vegetables, Mr. C. W. Devlin won with an exhibit of high standard of quality, and also won the prize offered for three Queensland Blue Pumpkins, in the open class.

POTATO CROPS IN N.S.W.

Yields Reduced by Dry Weather and Frosts.

OWING TO DRY CONDITIONS, states the N.S.W. Dept. of Agriculture, Potato yield prospects have been considerably reduced compared with the outlook a month ago.

In the largest producing area of the State, viz., New England, no beneficial rains were recorded, with the result that

(Continued on page 278.)

Law, Somner Pty. Ltd.

ONION SEED

Onion White, Imperial, Spanish.—Best long-keeping White Onion in cultivation. Comes in after Silverskin and Early Globes. Large size, heavy cropper — **6d. pkt., 2/- oz., 7/- ¼ lb., 25/- lb.**

Onion Brown Spanish. — Specially selected long-keeping strain—**2/- ¼ lb., 5/6 lb., 7-lb. lots or more, 5/- lb.**

Onion Somner's White Queen.—Earliest White Queen. Best early white on market. Mild flavor—**4/6 ¼ lb., 15/- per lb.**

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POULTRY NOTES

TURKEYS AND ORCHARDS.

MR. BEN E. NILES, Secretary of the Kentucky (U.S.A.), State Horticultural Society, in reporting their 79th annual meeting, said:

"Our organisation featured at this year's meeting irrigation for Apple orchards and the handling of turkeys to build up and maintain orchard fertility. One of our growers was able to report the successful production of more than 5,000 turkeys in his orchard, with a consequent gradual added fertility to the soil as well as very definite evidence that turkeys are very beneficial in the control of insects and diseases. This is quite a new venture with us and naturally the work reported was interesting to all present."

TOBACCO DUST FOR WORMS.

Mr. W. W. Lindsay, one of the leading poultrymen in N.S.W., is emphatic about the success of using tobacco dust for worms in poultry. He has been using "Pestend" consistently for six years with good results. Mr. Norman D. Kay, a well-known authority on diseases in fowls, recommends its use in the daily mash after the actual de-worming has been completed, in order to keep the fowls free from further infestation.

FOR GOOD HATCHING EGGS.

To secure good hatching eggs the following points are worth remembering:—

Use the correct number of females to one male.

Give the breeding flock plenty of room in the house, four square feet or more for Leghorns and five to six for the heavier breeds (per bird).

Give the breeders free range at all times.

Use hens for breeders, if possible. When pullets are used, select birds that are laying two ounce eggs, and are heavy in weight.

Mate vigorous, early hatched cockerels with these hens, or, if pullets, use old birds.

Give the breeders plenty of green food, cabbage or lettuce, green sprouted oats, even a little silage may help.

If it is home mixed, reduce the meat scraps in the ration by half the normal amount, and give the breeders milk in some form.

Gather hatching eggs twice daily or often enough to prevent chilling of eggs.

Select only clean eggs that weigh two ounces or more, and are pure white and of normal shape.

SEXING CHICKS BY COLOR.

The sexes of certain breeds may be determined by color of down, and in Barred Plymouth Rocks, the color of shanks in day-old chicks will indicate the sex in a considerable proportion of them. The females have darker color than the males. Those that show darker than the average are certainly females, while those with no dark in the shanks are certainly males. The trouble is that some are neither dark nor light, and it is impossible to tell whether they are one or the other. It may be that in 50 or 60 per cent. of the cases the shank color will indicate accurately the sex, and the other 40 or 50 per cent. it will not.

The down color of Barred Rocks in some cases is a key to the sex. In the female chick there is usually less white on breast and head than in the male. The lightest colored ones are males, and the darkest colored ones are females. But as in the case of the shank color there is a large proportion of them that are neither dark nor light.

This color factor may be used to advantage by one who wishes to select a few cockerels for rearing for breeding purposes, or to rear table birds. He could pick out those of unmistakable light color of shanks and down, and the others could be sold to some one who preferred pullets, as a large proportion of them would be females.

The shank "color scheme" was investigated a few years ago by Professor F. L. Knowlton, at the Oregon Experiment Station (U.S.A.), who said: "Certain of the chicks could easily be distinguished as females and certain others as males, but there was an annoying overlapping of the shank colors in the case of an intermediate class, rendering it quite difficult to tell which sex they were."

GRIT FOR FOWLS.

A fowl can exist without receiving grit, but it will not be as healthy or fulfil its function of laying eggs properly. The average fowl consumes more than its own weight of grit per year. Hard grit enables it to break up the food, making it the more easily digestible, and in that way serves as teeth do in a human. Persons without teeth have a definite handicap in the matter of digestibility of food, so has a fowl who receives no grit. Two kinds of grit are necessary. Hard grit to grind up the food, and shell grit, from which a portion of the lime required by the body is obtained for bone-forming and shell making.

THE MARKET GROWER.

(Continued from page 277.)

late crops suffered severely. In Western districts the position is much the same, but in some portions of the Southern growing areas useful falls were received.

Severe frosts were recently experienced over a considerable area and, even though good rains be received at an early date, it is unlikely that yields will show much improvement. Owing to the open condition of the soil, some losses are feared from pests.

TOMATO BREEDING IN U.S.A.

Seedings from Bonny Best and Best of All are Better than Parents.

THREE PROMISING TOMATO SEEDLINGS are reported upon by the State Experiment Station, Pullman, Washington, U.S.A. These seedlings are numbered 20-1, 38-2, and 50-2: they are crosses between Bonny Best and Best-of-All, and are in many respects superior to their parents. One other seedling, 16-3, has some good characteristics.

In 1934 Bonny Best and seedling 20-1 began ripening their first fruits May 1, Best-of-All May 3, and seedlings 16-3, 38-2 and 50-2 May 10. The peak of the ripening period for all varieties under test was reached during the period May 15 to June 5, except for 16-3, which was slightly later. Records were kept of number and weight of Tomatoes produced on the first four fruit trusses. All seedlings had a greater total production per plant than Best-of-All, and two, 20-1 and 50-2, had a greater production than Bonny Best, and seedling 16-3 was slightly under. Seedling 20-1 was outstanding, producing 1,012 ounces of fruit against 780 ounces for Bonny Best, and 667 ounces for Best-of-All.

The average weight of the fruit of each in ounces was as follows:—Bonny Best, 3.6; Best-of-All, 3.4; 16-3, 4.4; 20-1, 3.3; 38-2, 3.0, and 50-2, 3.6. The average number of fruits produced per cluster was as follows: — Bonny Best, 5.2; Best-of-All, 4.7; 16-3, 4.5; 20-1, 5.5; 38-2, 4.7, and 50-2, 5.6.

Respiration studies showed that seedlings 20-1, 38-2 and 50-2 were lower in respiration intensity than either of the two parents, indicating a corresponding longer keeping period of the seedlings.

[For May and June in U.S.A., substitute November and December under Australian conditions.—Ed., "F.W."]

The Greeks called Lettuce "the wise man's herb," and regarded it as a cure for many ailments.

Australian and New Zealand Fruit Trade

Market Notes and News — Prices, etc.

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Ridley, Houlding & Co., Covent Garden.

GERMANY.

Bremen:

Fruchthandel, Gesellschaft.

MARKET NOTES.

Australian and New Zealand Fruit in United Kingdom.

London (April 27). — Cabled reports are to the effect that Apples are in fair demand, condition generally good. Some Tasmanian and Victorian Coxs and Ribstons were rather forward, some pitted. London quotations:—Tasmanian: Coxs, 5/9 to 13/-; Ribstons, 5/- to 9/-; Dunns, 7/- to 9/-; Cleos., 7/- to 10/-; Crabs, 6/9 to 9/-; Jons., 7/- to 9/3; Alfs., 6/9 to 9/6. Vic.: Coxs, 7/- to 10/3; Dunns, 8/3 to 8/9; Cleos., 7/- to 10/6; Ribstons, 5/6 to 7/-; Jons., 8/3 to 10/-; Alfs., 8/- to 8/9. N.Z.: Coxs, 8/- to 16/-; Jons., 7/6 to 13/9; Dunns, 8/- to 10/-; Alfs., 10/-; Cleos., 7/3 to 10/-; Ballarats, 8/- to 10/-.

Pears.—Cases—W.A.: B.B., 12/- to 16/-; Jos., 14/- to 16/-; Packhams, 13/- to 15/-; Howells, 10/- to 11/-. Vic.: Boscs, 8/9 to 12/9; Packhams, 8/- to 13/6; Howells, 6/- to 7/9; Jos., 12/- to 12/6; Nelis, 11/9 to 12/3; Anjou, 11/9 to 13/-. Tas.: B. Boscs, 9/6 to 12/3; Duchess, 8/-; Vicars, 6/- to 6/9; Cap., 6/3 to 6/6; Diel, 7/- to 7/6. New Zealand: Comice, 10/- to 15/-; Packham, 10/- to 11/6; Boscs, 10/9 to 13/-; Nelis, 9/- to 11/-.

Liverpool (27/4/35).—Tas.: Cleos., 8/6 to 10/3; Coxs, 9/- to 13/6; Crabs, 8/6 to 10/-; Jons., 8/9 to 10/6; Ribstons, 7/3 to 8/9; Alfs., 8/- to 11/-. Victoria: Jons., 10/- to 10/9; London Pippins, 8/9 to 9/6. Sth. Aust.: Jons., 9/3 to 9/6. West Aust.: Cleos., 9/3 to 10/6; Jons., 8/9 to 11/3; Dunns, 9/3 to 10/9.

APPLES FOR CONTINENT.

Quantity Much Less than Last Season.

Owing to quotas and tariffs, it is expected that only 300,000 cases of Australian Apples will be sent direct to the Continent this year, as compared with 1,170,000 in 1934. Of the latter quantity, about 800,000 cases went to Germany, but this year the total quantity is expected to reach only 120,000 cases.

LONDON FRUIT PRICES.

In mid-April, the Harcourt Fruit Supply Ltd. received cabled fruit prices from T. J. Poupart Ltd., London, thus: Apples—C.O.P., 12/- to 16/-, others 8/6 to 10/-; Pears — W.B.C., 9/- to 11/-; Beurre Hardy, 12/- to 13/-. The general condition of the fruit was satisfactory, and the demand good.

Australian Apples in London.

Comments Re Immaturity by Former Agent-General.

THE CABLED REPORT from London that early Australian Apples had arrived immature and affected with bitter pit was commented on by Sir Walter Leitch, who was previously Agent-General for Victoria in London.

Sir Walter stated that he hoped for the good of Australia generally that the shipping of immature Apples would cease. The sending of immature fruit was harmful to our good name generally, and certainly it was of no value to the growers. The export of Apples should be viewed as a national asset. Growers and shippers should consider this larger aspect, and cease from attempting to supply the market at what was obviously too early a date.

"I personally inspected some arrivals of immature Australian fruit"—continued Sir Walter—"I wish growers and shippers would not send them in this condition. In one shipment of Apples the fruit had shrunk, was wizened, and had no color, and the case, instead of being full, had vacant space when stood on end of about 3 inches, consequently the Apples rattled badly in the cases."

"During my term as Agent-General, I gave much personal attention to fruit importations from Australia, and I am making these remarks with full knowledge, in the hope that growers and shippers will send to the Old Country only the varieties, sizes and quantities which the market there calls for, and, that the picking and despatch of immature fruit will cease. The Government and its fruit inspectors have done everything possible to bring about improvement, and I believe that most of the growers are playing the game and doing their best to improve the quality and reputation of Australian fruit, but there may be some still who are careless in this respect, and think they have done a smart thing if they can beat the inspector by shipping fruit not up to standard. These men should be dealt with by the Government and your association.

"I believe that the branding of cases of Apples shipped to England showing number and size would be preferred."

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Phones—MA 2612 and X 2317. and Growers' Cheques.

Telephones: Est. 1896.
MA 4432, Epping 840. **Bankers:**
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PHONE: MA. 1363 **Telegraphic Address—"Citrus" Sydney.**

Victoria

Market Report for April.

APRIL and early May being what may be termed the off season, market sales were light, the cool, wet weather also contributing to light movements on all floors.

Grapes were lighter than usual at this period, though the season is practically finished. Owing to a shortage of other varieties, Ohanez and Doradillo had a fair run, but prices were on the low side.

Apples and Pears. On account of exporters being busy getting away all export varieties, the picking of local supplies has been postponed, and supplies were short. By the middle of May it is expected that supplies will again be coming in.

Citrus. Very few old Oranges were offering, and the new crop offered so far are not up to standard. The new season's crop is nearly ready, however, and in a week or two will be available.

Bananas. There was a good demand, but supplies were rather short. Prices remained steady.

Pineapples. The canneries taking most of the sizeable fruit, only smalls were available. General low prices were necessary to quit the supplies.

Tomatoes. Only fair in earlier part of the month, but improved in the last week. Supplies now falling off.

Melbourne. — Prices quoted by the Wholesale Fruit Merchants' Association on April 29 were as follow:—Per Case: Apples, 4/- to 7/-; special higher; cooking, 2/- to 4/6; Bananas (per double case), green, 8's and 9's, 15/- to 16/-; 7's, 13/- to 14/-; 6's, 10/- to 12/-, few higher; cantaloups, 4/- to 6/-, few higher; Grapes, Waltham Cross, 12/- to 16/-; Muscatels, 12/- to 16/-; colored varieties, 6/- to 10/-; Doradillos, 4/- to 7/-; Oranges, Vals., 8/- to 16/-; special, 18/-; Navel Oranges, 12/- to 16/-; Lemons, 10/- to 16/-; green and immature lower; Oranges, 7/- to 16/- (few special higher); Passionfruit, 6/- to 12/-, few higher, inferior lower; Grapefruit, 9/- to 12/-, few higher; Pears, 4/- to 6/-; Tomatoes, 4/- to 7/-; Pineapples, 6/- to 12/-; Quinces, 2/- to 4/-.

The Melbourne market manager of the Federal Citrus Council of Australia reports sales as follows:—Washington Navel Oranges, new season's, counts 126-140, 14/- and 15/-; 154-168, 16/-; Thompsons to 15/-; good plains, to 14/-; Vals., selected standards, to 15/- and 16/-; specially selected, 17/- and 18/-. Lemons, good standards, to 10/- and 11/-, best counts; selected standards, full-colored, 15/- and 16/-; green and part green, to 11/- best counts. Grapefruit, Marsh Seedless, to 12/-, a few Mildura to 14/-, best counts; seeded varieties to 10/-.

VICTORIA MARKET, MELBOURNE.

Recent statements in the public press as to the spending of large sums on extensions to the Victoria Market, Melbourne, appear to be premature.

Certainly the subject is under the close consideration of the City Council, but that is all that can be said at the moment.

New South Wales

Sydney (23/4/35).—Apples: Cleo., 3/6 to 6/-; Del., 5/- to 10/-; Duke of Clarence, 3/6 to 5/-; Fanny, 3/6 to 6/-; French Crab, 4/- to 6/-; G. Smith, 5/- to 9/-; Jon., 4/- to 7/-; King David, 3/6 to 5/-; L. Pippin, 3/6 to 5/6; R. Beauty, 5/- to 7/-. **Pears:** R. Bosc, 4/- to 6/-; Howell, 3/- to 5/-; Packhams T., 5/- to 9/-; W. Cole, 4/- to 7/6.

Comments on the Apple and Pear Position. Approximately 26,000 cases of Apples and Pears are arriving from Tasmania to-day. Slightly better demand was experienced for Apples this morning, but the market is unsettled owing to the holidays. **Pears:** This fruit appears plentiful, types other than Packham's T. and W. Cole met with only slight demand.

Bananas: N.S.W. and Q'ld., 10/- to 18/-, few higher per trop. case.

Arrivals for the past week totalled 13,748 trop. cases, and were comprised as follows—13,148 (N.S.W.), 250 Queensland), and 350 (Norfolk Island). Smaller deliveries caused the market to remain firm most of last week. Prices this morning, however, are easier.

Custard Apples, Q'ld., 5/- to 7/- half-case.

Citrus: Grapefruit (U.S.A.), 30/- to 32/- per half-case. Lemons (N.S.W.), colored 6/- to 12/-, few 17/- bushel, smaller, 6/- to 9/- bushel; Vic., 8/- to 12/- bush., plain grade and green, 3/- to 6/-. Mandarins, second crop, 3/- to 10/- bush.; Vals., 6/- to 14/- bushel, second crop, 3/- to 7/-.

Comments on the Citrus Position. Lemons: Large sizes in Lemons are very scarce, and small, green fruit is plentiful. **Valencias:** Main crop deliveries continue plentiful, and small second crop fruit is difficult to place. **New Season Citrus:** Siletta and Navel Oranges are appearing, but are in very small request.

Grapes: O'Hanez, 5/- to 6/- half; Black Muscat, 6/- to 8/-; Cornichon, 5/6 to 7/-, few 7/6; Doradillo, 4/- to 6/-. This fruit has experienced the chief enquiry in the market, and on Saturday morning and this morning improved in price. **Papaws,** 9/- to 12/- trop. case; **Passionfruit,** N.S.W., 5/- to 7/-, special, 10/- half, inferior from 3/-; Vic., 4/- to 7/-. **Persimmons** (N.S.W.), 1/- to 3/- half.

Pineapples: Queensland Queen, 9/- to 12/-, few 14/- tropical case. Small and inferior, 5/- to 7/-. **Quinces:** N.S.W. and Vic., 4/- to 6/-, few 7/- bush., inferior lower. **Tomatoes:** N.S.W., 3/- to 4/6, few special to 6/- half; Vic. (Portland), 7/- to 8/-, few 9/-, bush; repacked, 3/6 to 6/- half. Ripe fruit is in request, and supplies generally have eased owing to the cold weather.—L. T. Pearce, market representative, N.S.W. Fruitgrowers' Federation.

Tasmania

Hobart (26/4/35).—Peaches, 3/- to 3/9 case; Quinces, 1/6 half case; Apples, 1/- to 1/6 case; Pears, 1/6 case; Tomatoes, 2/- to 2/9 case.

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CITY FRUIT MARKETS, SYDNEY

Queensland.

Brisbane (15/4/35).—The following market notes and prices are to hand from Messrs. Robsons Pty. Ltd.:—

Apples: There was a plentiful supply of Kentucky Jons. on our market this week, which sold freely at 7/6. Choice G. Smiths from Stanthorpe also sold at the same figure. Tas. French Crabs are realising to 7/-, with other varieties of cookers selling in the vicinity of 6/-.

Southern **Oranges** are just about finished, odd consignments of choice quality realising to 14/-. We anticipate that next week will see local supplies of Oranges on the market, and firm values should be realised for these consignments.

Custard Apples are now obtainable, good samples selling to 6/6.

Choice **Pineapples**, suitable for country trade, were scarce last week, most con-

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signments coming to hand being small sizes. Ruling rates were to 8/- for choice quality, and to 5/6 for small sizes.

Good Grapes have been scarce, choice fruit realising to 9/-.

During the past few days the vegetable market has shown a tendency to ease, choice Tomatoes selling to 7/-, Beans to 6/- per 30-lb. bag, and Peas to 11/- per 30-lb. bag, and local Cabbage to 6/- dozen.

Press reports, under date April 24, report prices as follow:—

Brisbane.—Pineapples, smooth leaf, cases, 3/- to 7/-, choice 7/6; Ripley's, 8/- to 9/-; Lemons, 6/- to 11/-; Gayndah, 10/- to 13/-; Benyenda, 16/- to 18/-; Oranges, 6/- to 8/-, few 9/-; Navels, local, 8/- to 11/- bushel case; Gayndah, 9/- to 12/-; Benyenda, 10/- to 14/-; Grapefruit, 4/- to 6/- bushel case; Stanthorpe cooking Apples, 3/6 to 5/- bush. case; G.S., 6/- to 8/-; Jons., 5/- to 7/-; others, 4/- to 6/-; Passionfruit, 9/- to 14/-; Grapes, white, 4/- to 8/- case; Gros Colman, 3/- to 7/-; Purple Cornichon, 8/- to 12/-; Papaws, 3/- to 6/- bush. case; Yarwun, 10/- to 12/- a bushel and half-case; Custard Apples, 4/- to 5/- half case, small 3/-. Imported Fruit: Vic. Lemons, 10/- to 15/-; N.S.W. Passionfruit, 12/- to 15/-; N.S.W. Oranges, 7/- to 13/-, others, 7/- to 9/-; Pears—W.C., 7/- to 11/-; Tas. B.D.C., 5/- to 8/-; B.D. and B.C., 5/- to 6/-; G.B., 7/- to 9/-; W.C., 7/- to 11/-, small 5/- to 7/-; Apples—Kentucky Jons. and Vic. Jons., 6/- to 8/-; Tas. D.C., 5/-; Jons., 6/- to 7/6. Bananas (cases): Nambour JE, 13/6 to 11/-; AM, 12/- to 8/9; ECB, 10/6 and 9/6; JMC, 9/3 and 9/-; Mooloolah, T.W., 13/3 to 9/-; Landsborough, DB, 13/3 to 9/3; AR, 12/6 to 8/6; WCCW, 12/-; JHD, 11/- and 9/6; A & K, 10/6 and 9/-; ES, 9/6; CB, 9/-; Pomona, JLP, 13/- and 11/6; H & B, 11/6 to 9/6; W, 9/6 and 9/-; Yandina, JC, 13/- and 11/6; CHS, 9/6; EWK, 9/-; Caboolture, AVL, 12/6 to 9/6; Cooran, RCM, 12/-; HMC, 11/9 and 10/-; Buderim, CD, 11/9 and 10/-; FWM, 11/9 and 9/6; FAM, 11/6 and 9/6; WHD, 11/6 and 9/3; RLM, 10/6 to 8/-; GW, 9/6 and 6/-; Neurum, F, 11/9 and 9/-; PE, 11/- and 9/-; Closeburn, HY, 11/6 and 9/3; MT, 11/- and 9/3; Eumundi, RMC, 11/6 and 9/-; Gympie, AW, 10/6 and 9/6; Dayboro, FN, 8/- and 7/6, bushel cases; Buderim, WHD, 5/-. Lady Fingers: Buderim, WJD, 9/-. Box Lady Fingers: Nambour, OZ, 2/9.

Western Australia.

Perth (23/4/35). — There was a good tone in the fruit section of the Metropolitan Market on April 22. The market was well supplied, and several lines firmed, the outstanding examples being Pears and Oranges. Prime Jon. Apples were firmed, but cooking varieties, even those of good quality, were dull and low grades were hard to quit. Tomatoes eased slightly, but other lines were steady.

South Australia.

Adelaide (26/4/35).—Apples (eating), 4/- to 5/- case; Apples (cooking), 3/- to 4/- case; Bananas, 24/- crate; Figs, 7/- case; Grapes (dark), 7/-; Grapes (white), 7/-; Lemons, 9/- to 10/-; Oranges (Common), 18/- to 20/-; Oranges (Navel), 20/-; Passionfruit, 14/-; Peaches, 8/- to 9/-; Pears (eating), 8/- to 9/-, cooking, 4/-; Pineapples, 14/-; Quinces, 2/- to 3/- case.

New Zealand.

Dunedin (18/4/35).—Messrs. Reilly's Central Produce Mart Ltd. report as follows:—

As is always the case prior to holidays this has been an exceptionally busy week. Supplies of Nelson Apples have now eased off, and good consignments are coming forward from Central Otago. Some splendid lines of Del. and Jons. have been received from this district, and coloring and flavor this season has been exceptionally good. Values for this class of fruit are now more satisfactory. Some very fine lines of W. Coles have also come to hand.

Quinces are in over supply, and there is absolutely no demand for this fruit.

Increasing supplies of local hothouse Tomatoes are now coming forward, and values are satisfactory.

Grapes are now in full supply, and some very fine Gros Colmars are available.

Prices (bushel and American cases): —Apples, Choice clean Coxs, 8/- to 10/-; Jons., 4/- to 6/-; Dels., 4/- to 8/-; cookers, 3/- to 5/-; Pears—W. Coles, 4/- to 6/-; W. Nelis, 5/- to 6/-; Cal. Navels, 40/-; Vals., 36/-; Island Oranges, 20/-; Bananas, ripe Niues, 22/6; Cal. Lemons, 46/-; N.Z. Lemons, 1st grade, 20/-. Half Cases: Pears—W. Coles, 2/- to 3/-; Bartlett, 3/-; cooking Pears, 1/6 to 2/-; Peaches, Freestone, 4/6; Plums, 3/-; Passions, 11/6; Cape Gooseberries, 4/6.

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(2) Maturity of crop earlier than those of the other States.

(3) Concentration on the production of leading varieties, such as Granny Smiths, Jonathans, Delicious and Dunns—all good export varieties.

1932 Season.

Until 1932, the production of the district was not in excess of local market requirements at the time of harvesting. There was, therefore, no problem as to the disposal of a surplus production by cold storage for later marketing, or export, as obtained in the other States. In 1932, however, the total production of the district was 224,000 cases, which represented an increase of 52,000 cases on the previous year. Of this quantity, 7,550 cases were exported, of which only 1,091 cases were sent "on consignment" to England. The rest represented f.o.r. or f.o.b. sales to exporters for shipment to Eastern ports.

1933 Season.

At the conclusion of the 1932 season, it was evident that a big increase in production could be expected for the following season and that adequate arrangements would need to be made beforehand to cope with the surpus. Prior to the 1933 season, therefore, the growers considered a scheme designed to effect stabilisation of the local market.

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Such proposal was—

An Apple Stabilisation Scheme,

the main features of which were—

(1) The establishment of a maturity standard to prevent the marketing of immature Apples; the maturity standard to apply to all consignments from the southern States as well as from the Stanthorpe district.

(2) The purchase of Apples to keep them off the market when the quantity being marketed would cause a price collapse.

(3) To work in conjunction with an Agents' Committee on the Brisbane market to regulate supplies, and so maintain the best price possible.

In the circular sent out with the ballot papers it was stated that the surplus Apples purchased by the C.O.D. would be marketed as occasion offered so as not to affect the local market adversely. Supplies might be exported or diverted to country markets. No marketing procedure could be laid down at that stage.

The proposals, which provided for a levy of 3d. per case for the establishment of the Stabilisation Fund, were approved by a majority of 68 per cent. of the growers voting.

The 1933 season was a prolific one for all classes of fruit all over Australia, and throughout the deciduous season glutted markets ruled everywhere. The Stanthorpe Apple crop alone was 346,000 bushels, over 100,000 bushels in excess of the previous year. When heavy supplies to the Brisbane market caused prices to fall, the C.O.D. operated under the stabilisation scheme. The first purchase was made from the market in order to firm prices. It was considered that without such buying, prices would fall to ridiculously low levels, but if the C.O.D. operated the agents would have confidence in holding for the prices aimed at. This action had the effect of arresting the downward movement of prices. Subsequent supplies were purchased through packing sheds operated by the C.O.D.

The fruit purchased under the Stabilisation Scheme was disposed of in two ways—

(a) Cold stored for later local marketing;

(b) Exported.

At the conclusion of the season, it was estimated that the loss incurred through these stabilisation efforts amounted to 1d. per case. Growers were accordingly refunded 2d. per case of the levy they had previously paid. The funds available would have enabled a much greater quantity of Apples to have been purchased at the prices fixed, which would have firmed the market and increased growers' returns considerably above the amount of levy paid. Even the comparatively small amount diverted under the scheme had a steadying effect on the market.

Although returns were unsatisfactory, they were higher than would have been the case if no stabilisation effort had been made. The season's average was about 5/6 per case.

The total quantity of **Queensland Apples exported** of the 1933 crop was 31,654 cases. In common with all Australian exporters, a loss was shown on most of the shipments to U.K. Shipments were made "on consignment" by the C.O.D. of some of the fruit purchased under the Stabilisation Scheme, but a considerable quantity of the consignments represented f.o.b. sales to various exporters. Of the quantity exported, 3,764 cases were sent to Eastern ports, the balance to U.K. The Eastern shipments were on account of various exporters, and showed a substantial drop in comparison with the previous year, viz.—

1932.	1933.
6,449	3,764 cases

The diminishing supplies to the East can possibly be attributed to the fact that keen competition between the various States of Australia and the various exporters for this trade has rendered it unprofitable. In the C.O.D. manager's report on "Eastern Trade" in January, 1930, as a result of a visit to the East, he stated:—

> "**Australian Internal Competition.** There is considerable danger of the trade in Malaya developing into a competitive one during the Australian season between West Australia, Victoria, New South Wales and Queensland, and also between the various importers and exporters in the several States. The market is a good one, and may easily be the cause of considerable price-cutting. It is very desirable that the exporting interests confer. Co-operation would be much better than indiscriminate competition."

Time has proved this forecast correct. In 1933, every port in the East was overloaded, and a large amount of the fruit had been sent "on consignment." Some exporters sent "on consignment" on the understanding that they would not receive their money until the con-

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signee had received payment from the dealers.

The C.O.D. did not participate in any Eastern shipments, as its export proposals aimed at co-ordinating export interests.

1934 Season.

The prospects for the 1934 Apple season were that supplies would be at least as heavy, and even heavier than the preceding season. A census taken by the C.O.D. prior to the season revealed the fact that over one-third of the acreage had still to come into bearing, and an annual yield of 500,000 bushels was in sight. As the local markets could profitably absorb only 250,000 cases during the season, it was evident that export would need to be undertaken to effect market stability.

A scheme of voluntary export was decided upon. Under the scheme a levy of 1d. per case was imposed on all Apples marketed from the district, and from the fund created by the levy a bonus of 1/- per case was paid to every grower who sent Apples overseas "on consignment." Whereas, in the previous season, the C.O.D. had purchased the Apples and taken the risk of export, this season the risk was the individual grower's.

Owing to seasonal conditions, the anticipated increase did not materialise, and the total quantity of Apples produced in the district was 270,688 bushels, actually 74,000 cases less than the previous record season. Export quantities, however, were 14,256 cases in excess of the previous year, a total of 46,027 cases being exported. Of this quantity 22,000 cases were shipped by growers "on consignment," the balance being f.o.b. sales to various exporters.

The effect of this diversion on the local market, particularly during the first overseas shipment, was most marked.

Owing to the English market proving a disastrous one for all Australian shippers during 1934, the returns to the individual growers were not entirely satisfactory, and in some cases considerable loss was sustained. As these voluntary export shipments had ensured a comparatively satisfactory local market to growers generally, at the conclusion of the season it was agreed, as a matter of equity, that growers who had participated in export and whose average realisation for each variety over the season was less than 5/- per case—the estimated local parity — should be remitted from the export fund an amount required to bring such realisation up to this figure.

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1935 Season.

Prior to the 1935 season, a conference of Apple growers gave to the C.O.D. complete control of export arrangements. Previous experience had demonstrated the necessity for a controlling body to negotiate with the various exporters, thereby ensuring a uniform price for the different varieties and grades. Minimum prices were fixed for f.o.b. sales, and buyers, in place of their former practice of individual barter with growers, would now approach the C.O.D., who would arrange the supply to such buyers at the agreed upon prices.

As in the previous season, a system of individual subsidised export "on consignment" was also agreed upon, for which, from the export fund to be created by a levy of 1d. per case on all Apples marketed from the district, growers would probably again be guaranteed a price of 5/- per case. The levy was agreed to by 64 per cent. of the growers voting.

Unfortunately, very severe hail damage right throughout the district has reduced the crop considerably, and the amount to be exported to negligible proportions. Accordingly the levy is not being collected, as there is sufficient in the export fund from last season to take care of any export shipments that may be made "on consignment." The C.O.D. is arranging sales to exporters at the agreed upon minimum.

Summary.

1.—The growth of the Queensland Apple industry is demonstrated by the following production figures:—

1932.	1933.	1934.
224,000	346,000	271,000 bushels.

The decrease in 1934 was due to seasonal conditions, as a recent census of the industry shows that over one-third of the acreage has still to come into bearing.

2.—To meet the increased production, export was rendered necessary. Such export has increased each year, viz.:—

1932.	1933.	1934.
7,550	31,654	46,027 bushels.

3.—Export has developed from a haphazard undertaking by individual growers to an organised business at a guaranteed price. A levy on all production has removed the risk of export from an individual basis to a district basis.

(a) F.o.b. sales are arranged by the C.O.D. with exporters at pre-determined prices;

(b) Growers sending "on consignment" are guaranteed local parity.

FRUITGROWERS CONGRATULATED.

London, January 18. — The "Daily Telegraph," in an article, congratulates fruitgrowers of the Empire upon their not allowing the trade to develop in a haphazard fashion. It says that the conference last summer (over which Mr. G. W. Brown (Australia) presided), ensured that overseas supplies should not intrude upon the British producers' season. Quality rather than quantity is now the aim of Dominion producers. Such development of Imperial resources points to a further approach toward self-sufficing organisation.

POULTRY BENEFITS ORCHARDS.

A well-known poultry expert who travels all over Victoria, writes as follows upon the advantages of having poultry running in orchards:

"From time to time I have made note of the value of poultry running in the citrus groves. When on the block of Mr. S. Brinsden at North-west Merbein, the other day, I noticed a patch of citrus well fenced as a fowl run. Mr. Brinsden said that these trees had been weaklings before the fowls ran among them and were now, perhaps, the best on the property. They certainly look well. Fowl manure has benefited other trees, six to eight tons to the acre having been used, or about half a ton between each tree in a row."

POWDER MAKER.

"It says the man was shot by his wife at close range."

"Then there must have been powder marks on the body."

"Yes, that's why she shot him."

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BEE KEEPING

Autumn Management

(By E. A. Earp, Senior Apiary Instructor, N.Z.)

In case all surplus honey has not been removed by the time these notes appear, beekeepers would be well advised to use bee-escapes. There is a grave risk, unless extreme care is exercised, in removing honey so late in the season. The use of bee-escapes will, with ordinary care, enable operations to be completed in comfort and without the interference of robber bees, which are particularly active at the close of the flow.

It is well to make sure that the colonies have a sufficient supply of honey on hand to winter well; thus an estimate of stores should be made when the surplus is taken. In most districts it is good practice to leave not less than 40 lb. of honey for each colony's requirements, while in some districts 60 lb. will be a safer estimate. The three main factors to be observed are strong colonies, abundance of stores, and queen-right hives. As the season advances supers not fully occupied by the bees should be removed and stored away.

Uniting Colonies.

All weak and queenless hives should be united. The golden rule of modern beekeeping is to keep all colonies strong, and this applies specially to the autumn months, when weak colonies are in danger of being robbed If by any chance late swarming and weak colonies from defective queens have to be dealt with the procedure recommended is as follows: After taking the roof and mat from a queen-right hive, place a sheet of newspaper immediately over the top of the frames and carefully place the queenless colony on top. Little smoke will be required if the colony is gently handled. Weak colonies should be similarly treated. There is no need to remove one of the queens, as the bees will decide which they will keep.

Robbing.

Robbing is the result of carelessness, and once it has started is exceedingly hard to check. Do not expose honey, sugar syrup, or anything that the bees can rob. See that the honey-house is bee-proof, and that all combs and vessels containing honey are removed to a place of safety. Contract all hive entrances, and especially guard against leaving hives open in a way that they can be attacked by robbers. All operations must be carried out quickly. If robbing has started it is better to postpone all outside work until the apiary is quiet again than to risk extending the trouble by opening the hives. Should a colony be attacked, contract the entrance and pile wet grass in front of the hive. This will usually cure mild cases of robbing, but where a colony has been overpowered by the robbers it should be closed altogether.

Care of Extracting-combs.

If proper care is not exercised in storing the extracting-combs when removed to the honey-house, it is far better that they should be stored in the hives. If the latter plan is adopted the mats must be placed on top of the brood-chamber, and the supers tiered above the mats. Unless the apiary is well sheltered, however, the hives must be weighted, as the winter gales will easily overset them when only empty combs are stored inside. It is far better to remove the combs if it can possibly be done, and thereby obviate the labor of lifting the supers if it becomes necessary to examine the brood-chamber. But in this case the combs must be properly housed to secure them from destruction by mice and wax moths. The price of foundation now ruling is making it far more costly to produce combs, and if large numbers have to be annually produced the renewals become a severe tax on the season's profits.

During extracting many combs may become damaged, but the damage can be repaired by the bees when the combs are returned to the hives. As a rule, mice destroy the combs beyond repair, and no effort on the part of the bees can restore them to their original form. It is during the working-season that the beekeeper realises the value of combs in securing the crop. A shortage of combs during the flow will often prevent the bees being kept in working-trim, and the production of honey will be greatly restricted.

Should the wax moth be detected, the combs must be fumigated. Bisulphide of carbon is generally used for destroying insect-life, but it should be used with great caution, as it is highly inflammable. It is far better when storing the combs at the end of the season, to place a few moth-balls among them. This will be sufficient to prevent the attack of the moths.

Care of Equipment.

As soon as the honey has been disposed of, all utensils used in handling the crop should be thoroughly cleaned. Remove all traces of honey from the extractor, tanks, uncapping-knives, etc. Wash carefully with boiling water, and dry thoroughly to prevent rusting. It is advantageous to use loose washing-covers of close texture to cover the tanks and extractor. The covers will help to keep the utensils free from dust that is likely to accumulate during the winter. See that all metal parts likely to rust are given a good coating of oil. In season or out of season the watchword of the beekeeper in the extracting-house should be cleanliness.

—("N.Z. Journal of Agriculture.")

IODISED WRAPS FOR FRUIT.

Mr. R. G. Tomkins, of the Low Temperature Research Station, Cambridge, England, has investigated the possibilities of using iodised coverings for fruit when placed in storage. The severity of many fungal diseases of storage is notorious, and the use of germicidal covers would appear to be one of the most obvious methods of control, if the fungicide has no harmful effect on the fruit. The iodised wraps are made by treating tissue paper with a definite volume of iodine solution—a covering 25 cm. square contains approximately 30 mgm. of free iodine. Laboratory tests show that rotting fruit in store can be considerably reduced by this kind of wrapping, whilst the appearance and ripening of most varieties is not impaired. Further investigations include a study of the amounts of iodine absorbed by the fruit, and a more extensive determination of varieties which are harmed by iodine treatment.

DOCTORS ORDER ORANGE JUICE.

THE doctors at the Los Angeles General Hospital are alive to the medicinal value of Orange juice. The average daily consumption of Orange juice is more than 300 quarts, besides about 80 quarts of Lemon juice. This drink is only given on a doctor's prescription and has to be pure juice without the addition of water, soda or any other fluid. The nurses state that there is no difficulty in getting the patients to take their "medicine" as only fresh Oranges are used.

As a "chaser" for castor oil, Orange juice is used extensively, and is a popular method of taking this objectionable treatment. Maybe something more than humor was introduced into the sentence of Judge Freeman, of Arizona, who recently sentenced four men, convicted of stealing Oranges from orchards, to swallow half a pint of castor oil each. The alternative being 60 days in gaol, the men chose the oil and were released.

Reports from Chicago state that America's five most famous babies, the Dionne quintuplets, have been ordered Orange juice by Dr. Dafoe, who has asked the Sunkist Corporation to keep the nursery supplied with fresh Oranges. It has been arranged to record their weights periodically in all American newspapers. An unsolicited testimonial to the value of Orange juice for infants.

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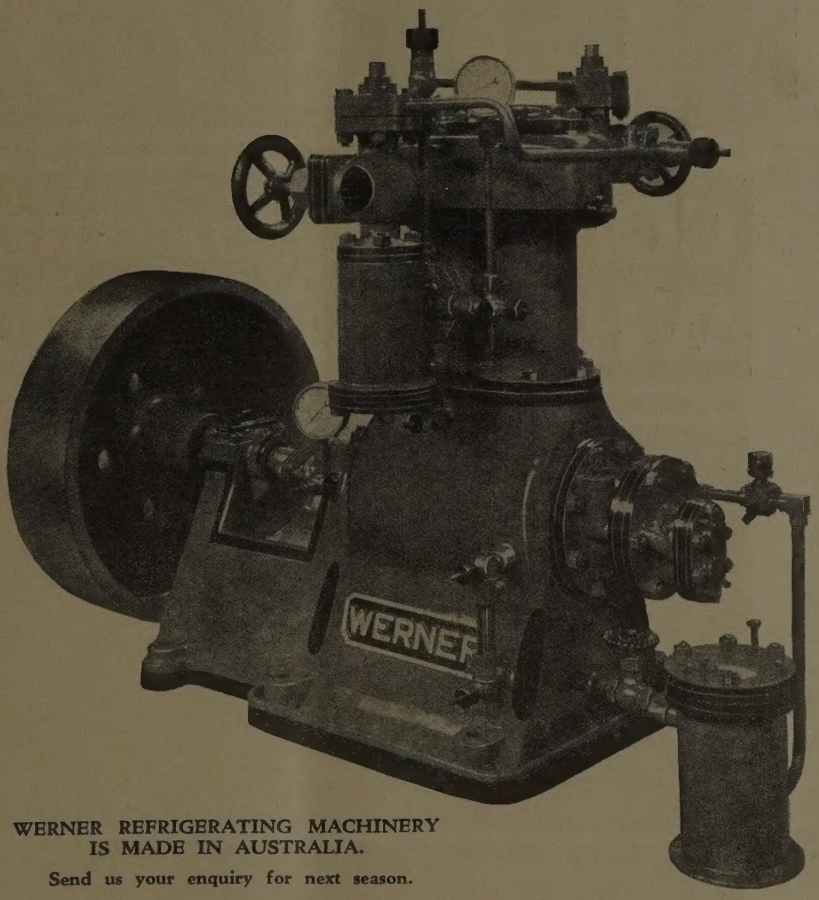

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